CARPENTER'S NEW GEOGRAPHICAL READER

George Gross
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A scene on the banks of the Grand Canal in China. The boat at the right is called a sampan.

CARPENTER'S NEW GEOGRAPHICAL READER

ASIA

BY

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"AROUND THE WORLD WITH THE CHILDREN" AND

"READERS ON COMMERCE AND INDUSTRY"

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THE CARPENTER BOOKS

Introduction to Geography

AROUND THE WORLD WITH THE CHILDREN

Journey Club Travels

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THE CLOTHES WE WEAR
THE HOUSES WE LIVE IN
OURSELVES AND OUR CITY
THE WAYS WE TRAVEL

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SOUTH AMERICA
EUROPE
ASIA
AFRICA
AUSTRALIA, THE PHILIPPINES, AND OTHER ISLANDS OF THE SEA

New Industrial Readers

HOW THE WORLD IS FED
HOW THE WORLD IS CLOTHED
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CARP. NEW ASIA
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PREFACE

For more than twenty years Carpenter's Geographical Readers have held a large place in the teaching of geography. They have supplied the flesh and blood necessary to clothe the dry bones of the geographic textbooks, and make the countries and peoples living entities in the minds of the pupils. The original books had all the charm of a story. The pupil was so interested that the reading of Carpenter was viewed as a pleasure, not as a task.

In Carpenter's New Geographical Readers, of which this volume is one, all the charm of the original books has been retained, and many new features have been added, which give the child a live, working knowledge of his world of to-day. The human interest appeal has been intensified along the lines of the American child's sympathies and development. The pupil is shown how each country and people is associated with the United States in the life, work, and trade of the world, and how they are related to him, as a patriotic American citizen.

As to the new material since the original volumes were written, Mr. Carpenter has traveled more than one hundred and fifty thousand miles in foreign lands, taking notes and photographs with a view to this revision. He has visited every continent and almost every country described, keeping before him the geographic demands of the American pupil. For this volume, for instance, he made three voyages across the Pacific, and traveled back and forth through nearly every country of Asia.

The original form of the books, that of a personally conducted tour over each continent, has been retained. In company with the author, the child himself goes from country to country, visiting the people in their cities and villages, on their farms and in their factories, finding out how they live and work, realizing the manifold relations he has to them and they have to him.

To acquire this knowledge is the reason for the travels; and this fact is kept uppermost by a series of questions and proposed journeys, which, worked out in connection with the tables in the back of the book, give the pupil a practical knowledge of every country and people, of their resources, industries, and trade. With a proper use of the books any pupil should be able to tell how the goods made in his locality can be sent to any important port of the world, and how he can go there from his home in the United States by the shortest route. He can tell also approximately how far and how long he will travel.

Throughout the books, the author has kept in mind the development of the American child in his world relations. By comparisons with things at home, he is able to visualize things abroad and the part each country holds in the new world of to-day. The ideal of Americanism is everywhere present. The child is made to feel the important position his own land now holds in the world and his part in maintaining it. He also realizes the fact that he is only one of a large, working world-family, all of whom should strive for peace and the betterment of mankind.

When these readers were first issued, many well-known instructors said they marked a new era in the teaching of geography. These New Geographical Readers are an even greater advancement along the same lines, and will prove of extraordinary value as supplementary readers.

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ASIA
SCALE OF MILES
0 200 400 600 800 1000
ATLANTIC OCEAN
ARCTIC
GREENLAND
ICELAND
BRITISH ISLES
NORTH SEA
BALTIC SEA
NOVA ZEMBLA
KARA SEA
FRANZ-JOSEF LAND
EUROPE
UNION OF SOVIET
Leningrad
MOSCOW
MEDITERRANEAN SEA
BLACK SEA
Constantinople
ANGORA
TURKEY
Smyrna
CYPRUS
Damascus
PALESTINE
Jerusalem
TRANS-JORDAN
Cairo
NILE
Caucasus Mts.
ARMENIA
AZERBAIJAN
CASPIAN SEA
KAZAKH
Steppes
Balkash
Aral
TURKESTAN
Tashkent
TURKOMAN REP.
UZBEK REP.
Bokhara
Tabriz
TEHERAN
Bagdad
PERSIA
Ispahan
Hindu Kush Mts.
KABUL
AFGHANISTAN
KHELAT
BALUCHISTAN
DELHI
Lucknow
Indus
Medina
Mecca
ARABIA
RED SEA
PERSIAN GULF
Strait of Ormus
MASKAT
OMAN
YEMEN
Aden
GULF OF ADEN
SOKOTRA I.
ARABIAN SEA
Bombay
Hyderabad
LACCADIVE IS.
C. Comorin
COLOMBO
MALDIVE IS.
EQUATOR
INDIAN OCEAN
60
80
40
60
20
0
20
40
Longitude
60
East
from

ARCTIC CIRCLE
SOVIET REPUBLICS
Tomsk
Irkutsk
Lake Baikal
Urga
Peking
Tientsin
Nanking
Shanghai
TROPIC OF CANCER
Lhasa
Yunnan
Canton
Hanoi
Hainan
PHILIPPINE ISLANDS
MANILA
Calcutta
Rangoon
BANGKOK
Saigon
ANDAMAN IS.
NICOBAR IS.
FEDERATED MALAY STATES
SINGAPORE
BORNEO
MOLUCCAS
JAVA SEA
BATAVIA
AUSTRALIA
JAPAN
TOKYO
Yokohama
Greenwich
100
120
140
20
0

The Taj Mahal, at Agra in India (page 304), is one of the most beautiful buildings in the world.

ASIA

I. GENERAL VIEW OF ASIA

WE are starting to-day on our travels through Asia. We are going to the other side of the globe, and before we come back we shall have traveled entirely around the world. Not many years ago, the publisher of a New York newspaper sent four schoolboys on a race around the world, and each of them had to travel about or through Asia. Two of the boys started from New York and went eastward over the Atlantic Ocean. One of them went to England and across the continent of Europe to the Ural Mountains. From there he continued his journey on through Siberia to Vladivostok (vlȧ-dyē-vȧs-tôk′), on the east coast of Asia. Thence he sailed south to Japan, and crossed the Pacific Ocean to the United States. The other boy who went eastward also landed in Europe, and then traveled southward across the Mediterranean Sea to the Suez (sōō-ĕz′) Canal. He passed through that canal into the Red Sea and the Indian Ocean, skirting the three great peninsulas of southern Asia in his voyage to Singapore (sĭŋ-gȧ-pōr′). From Singapore he went by steamer northward along the Asiatic coast to China and Japan, and thence eastward to San Francisco. The two boys who went from the United States westward traveled over about the same routes, but in the opposite direction, one of them starting from Seattle and the other from San Francisco.

In beginning our tour we might reach Asia by any of these routes, but have decided to go westward, taking passage from Seattle across the Pacific to Yokohama (yō-kō-hä′mȧ), Japan. The trip from our Atlantic coast to Seattle is more than three thousand miles, and those of us who live in the eastern part of the United States will be almost a week on the railroad before we get there. As the distance from Seattle across the Pacific to Yokohama is about five thousand miles, the voyage will take us ten or twelve days more; so that we shall be traveling by train and by steamer for two or three weeks before we first set foot on Asiatic soil.

Before we start out let us look at the map of Asia and plan our route. We must first know how the land lies, and a little about the countries we should most like to explore. In order to take along the right kind of equipment, we ought to know about the main lines of travel, the methods of transportation, and the climate.

The trip will be a long one, for Asia is the largest of the world's grand divisions. It contains more than seventeen million square miles, or almost one third of all the land on the globe. It is larger than North and South America combined, and almost equal to Europe, Australia, and Africa together.

The continent is one of mountains and plains. It has the loftiest plateaus and the highest peaks known to man. Mount Everest (ĕv′ĕr-ĕst), in the Himalayas (hĭ-mä′lȧ-yȧz), is almost six miles above the valley of the Ganges (găn′jēz), which lies just below it, and a great part of it is always covered with snow. On scores of other mountains the ice never melts. We shall need spiked boots and our warmest furs as we make our way over the glaciers.

Our great American highlands are in the western part

A glacier in the Himalayas. Some of these masses of slowly moving ice are from thirty to sixty miles in length.

of the continent; the highlands of Asia are in the center. The land slopes from there to the seas. Asia has fertile plains and vast deserts. There are many mighty rivers, such as the Ganges, the Amur (ä-mo͞or′), and the Yangtze (yäng′tsĕ), and along their courses are some of the best-watered parts of the globe. Many of our journeys will be by boat. Upon the high, dry wastes of Mongolia, Tibet (tĭ-bĕt′), and Arabia, we may travel on camel back for thousands of miles and be in sand and rock all the way. On the low, wet, jungle-clad plains of Siam, Burma, and India we shall have to make our way on elephants through the dense vegetation, and shall need guns to protect ourselves from the tigers. In the north, we may have dogs and reindeer to drag us over the snows.

This wonderful continent has all sorts of climates. Northern Siberia is like northern Alaska, a land often hidden by ice, while southern India, Ceylon, and Malaysia, lying not far from the equator, are very hot. On the Siberian tundras we shall need furs and sleeping bags to keep out the cold; in the south we shall almost roast in the thinnest of cotton.

A land of so many climates and soils is fitted for all kinds of crops. In northern Asia and on the highlands of India wheat and other hardy grains are produced in abundance. In the plains of the east and south, cotton plantations are to be found. Asia is the continent of tea and silk. It has the richest of rice fields, and fruits of every description, from the pears, apples, and peaches of the north to the bananas, pineapples, and mangosteens of the tropical regions.

But the most interesting feature of our travels will be the people. Asia is believed by many to have been man's first home upon earth. Many scholars think that the fore-

RELIEF MAP OF ASIA

fathers of our own European ancestors came from Asia into Europe at a time long before their recorded history begins. They populated that continent, and, much later, some of their descendants crossed the Atlantic to discover and colonize the New World. The Eskimos and the Indians of both North and South America are supposed to be descendants of other Asiatics, who went to the northeast and crossed Bering Strait into Alaska. Asia now has many races and peoples, all of whom are yearly becoming more closely associated with us in the work of the world. We depend upon some of them for a part of our food and clothing. Our tea comes from Japan, China, and India, and most of our silks are from those far-away lands.

Indeed, when we consider the vast population of Asia, we shall see what an important part it plays in this world of ours, and what a great field it might offer for the sale of the products of our own country. The whole human race is said to number about sixteen hundred millions. Of these, over eight hundred and fifty millions, or more than one half, live in Asia. Considering the world as one vast family, let us stop a moment and see what that means.

If all the men, women, and children on this big round globe could be gathered together into one field, more room would be needed for the people of Asia than for those of North America, South America, Europe, Africa, and Australia combined. The Asiatics would fill more than half the field. As we looked at them, they would seem strange to our eyes. One third of the crowd would be of the Mongolian race, having yellow skins, and eyes almond shaped and somewhat slanting. The majority of the Mongolians would be Chinese, the men dressed in gowns, and some of the women hobbling along on feet so tied up that they could not move without pain. There would also

Japanese girl in winter costume. Her gown is padded to increase its warmth. Small stilts keep her feet out of the snow.

be millions of little Japanese men as straight as arrows, and Japanese children with babies tied to their backs. There would be brown-skinned men from Siam, with hair standing out over their heads like the bristles of a shoe brush, and light-brown men from Burma with hair done up on top of their heads. There would be hundreds of millions of dark-skinned people from India with features like ours, and here and there, moving in and out through the crowd, yellow-skinned Koreans in gowns falling from neck to heel. There would be men from India dressed only in sheets, and men from Turkey and Arabia wearing turbans and gowns. There would be silk-clad maidens from Burma with plugs in their ears as big around as your thumb, and dark-faced Hindu women, clad in white cotton, with rings on their fingers and bells on their toes. There would be sober-faced Persians of sallow complexion, Bedouins from Arabia as black as negroes, and fur-clad Siberians with skins like those of our Eskimos. There would be Syrians, Armenians, and Malays, each in his own costume, but having many things in common with the rest of the crowd.

If we should continue to watch these people from Asia, we might observe that they do few things as we do. The schools are different, and the children have many queer games and playthings. They eat differently and work differently. Most of the Asiatics sit on their heels instead of on chairs, and millions use wooden pillows and sleep on the floor. There are whole nations whose men go about in long gowns, and other nations whose women wear trousers, and cover their faces with veils when they go out of doors.

If we could follow these peoples to their homes, we should find that each country has more or less civilization, in some respects quite as advanced as our own. We should

find that they have mighty cities in which hundreds of thousands of people engage in all sorts of trades, and that they have millions of little farms as well kept as our gardens. We should find that every country is connected with us in some way. Each is making or raising some commodities we use every day, and is using many things it buys of us. At nearly every port ships filled with American goods may be found, while other ships are starting out loaded with exports for the United States. But we shall see this much better as we proceed with our travels.

1. Locate Asia on the globe. How is it connected with Europe? With Africa? What ocean is on the north? The south? The east? What great sea is at the west?

2. Start out with each of the boys, from San Francisco, Seattle, and New York, and follow their four routes around the world. How far does one boy going west travel to reach Vladivostok? The other to reach Singapore? How far does each travel across the Atlantic?

3. Compare Asia with each of the other continents in respect to size; with the United States. How many times would the area of your own state be contained in that of Asia?

4. Locate the three great peninsulas of southern Asia. Where are the highlands of the continent? Compare their location with the highlands of the United States.

5. What mountain of Asia is the highest of the world? Compare it with the highest mountain of North America; South America; Africa; Europe. Tell where each of these mountains is and name the chain to which it belongs.

6. What part of Asia has weather like Alaska? What parts like Panama? What parts like our Western Highland?

7. If all the world's peoples were collected together, what part of them would come from Asia?

8. How many of you have seen people from Asia? Describe them and tell from where each came. To what race did they belong? From where is our race said to have come? The American Indians?

9. Mention some articles we use every day that come from Asia.

The steamer that carries us across the Pacific burns oil instead of coal.

II. ACROSS THE PACIFIC

OUR first trip is to be across the Pacific, sailing from America for the land of Japan. The Pacific is the largest and deepest of the oceans. It is the vast body of water lying between North America and South America and Asia and Australia. It covers more than seventy million square miles, or a larger area than the land surface of the globe. As we cross it on our way to Japan, we shall sail over waters more than three miles in depth. There is one place near our island of Guam where the United States ship *Nero* made soundings and found it to be almost six miles to the bottom. This is the deepest water known.

The Pacific Ocean from north to south is about three times as long as the distance from New York to San

Our route across the Pacific.

Francisco; and between the Western Continent and Asia, it spreads out toward the south in the shape of a gigantic fan, forming, as it were, a great liquid wedge between our continent and that on the other side of the globe. The point of the wedge is driven in between North America and Asia at Bering Strait. At that point it is less than forty miles wide, and only two hundred and fifty feet deep. The distance is so short that it is said on clear days one may sit in his reindeer sledge in Alaska and see the cold hills of Siberian Russia. The wedge widens rapidly as we go to the south, and if we attempted to cross it along the line of the Equator, starting in South America, we should travel ten thousand miles before coming to the Moluccas (mō-lŭk′ȧz), one of the groups of islands on the other side of the Pacific which Magellan's ships visited.

If we sailed from Lower California along the Tropic of Cancer, we should have eighty-five hundred miles to go

before we reached the Republic of China. From San Francisco, a little farther north, to Yokohama, Japan, the distance is four thousand five hundred and thirty-six miles. The ships go in a southwesterly direction to Honolulu in the Hawaiian Islands, and thence in a northwesterly direction to Yokohama, Japan. A shorter way across the Pacific, because it is so much farther north on the globe, can be found by going to Vancouver or Prince Rupert and taking a Canadian vessel, or one of the big American steamers from Puget Sound. The latter route is the one we shall travel. The distance is almost three hundred miles less than by San Francisco.

Our vessel is one of the steam-propelled greyhounds of the Pacific. It will take us ten or twelve days to go from North America to Asia, but we shall be quite as safe on the boundless deep as in our own house at home.

The ship itself is a wonder. It is a floating palace, made almost altogether of steel. It is about five hundred feet long, and more than sixty feet wide. It is long enough to stretch the whole length of an average city block; it would fill the street from side to side. The vessel is as high as an eight-story building and has as many rooms as a large hotel. The uppermost deck is the roof, and it forms a delightful playground. The ship has parlors and kitchens, sleeping rooms and bathrooms; a butcher shop, a bakery, a carpenter shop, and all sorts of machinery. The dining room is so large that several hundred can sit down at the tables at once. We find the food quite as good as that we have at home. Our waiters are yellow Chinese boys dressed in blue or white gowns, and we order by the numbers marked opposite each dish on the bill of fare.

We are delighted with our cabins, the little rooms which form our homes throughout the voyage. Each room accom-

modates two of us, and we sleep in two narrow beds or bunks built against the wall, one over the other, much like the berths of a sleeping car. Each room has a sofa, places for washing, and hooks for our clothes. There are electric lights and an electric bell, by which we call our Chinese room boy.

The great steamer has hundreds of such rooms. They run from story to story, down to the lower decks, which are filled with wheat, flour, machines, and other merchandise we are taking from the United States to our customers in Japan and China. We have ten automobiles and five motor trucks for Peking as a part of our cargo, and three locomotives for the railways of Siberia.

The whole interior of the ship, including the machinery, is incased in a shell of steel, not much thicker than one's little finger, which alone separates us from the ocean outside. In this shell we are to travel over more than four thousand miles of water without once coming in sight of land. We tremble a little as we think of the dangers, but the captain says that the loss of life on big ships is comparatively small, and that we are really much safer than we should be on land.

Soon after leaving, we go down below the decks to see the mighty machinery which is noiselessly but steadily forcing our great vessel on its way through the ocean. The engineer tells us that his engines represent twenty thousand horsepower, and it would take a compact line of two-horse teams more than twenty miles long, all pulling at once, to equal their force. He shows us the great tanks that contain the fuel oil required to feed them, and says it takes thousands of gallons to make the steam for each voyage. Our fuel oil comes from the fields of southern California. It is forced under the boilers in a spray mixed with air. Through the

EMPIRE OF JAPAN
SCALE OF MILES
0 100 200 300 400
For Sakhalin and Kuril Islands see map of Asia
Same scale as map of Japan
TAIWAN (FORMOSA)
HONSHU
KIUSHU
SHIKOKU
HOKUSHU
Tokyo
Seoul
Pingyang
Harbin
Vladivostok
Hakodate
Nagasaki
Kagoshima
Shanghai
Hangchow
Nanking
Hankow
Soochow
Foochow
Amoy
Ningpo
Taihoku
Taihoku
Taihoku

open doors of the furnaces, we can see the mighty flames rolling back and forth before our eyes. Is it not strange that much the same kind of oil as we burn in our lamps should carry this mighty vessel over the ocean?

Coming again upon deck, we find ourselves so far out at sea that there is no land in sight, and the captain tells us we shall behold none for ten days, or until we reach the islands along the east coast of Asia. We shudder at the possibility of breaking down in these watery wastes of the Pacific, where we might float for days and weeks without meeting a steamer, and wonder what we should do in case of a wreck.

We feel a little safer a few days later, when the captain says we are just off the Aleutian Islands, which belong to Alaska, and that the course here is so near the shores that the passengers can sometimes hear the foxes bark as the ship goes by. We next approach the Kuril (kōō′rĭl) Islands, a rocky chain belonging to Japan, and then turn to the south and sail for several days well out at sea along the Japanese coast. The weather now grows steadily warmer, and it seems to us we can almost smell the land of Japan. We go southward some distance out from the island of Hokushu (hō′kōō-shōō), and have sailed halfway down the coast of the great island of Honshu (hŏn′shōō), when one morning our Chinese boy awakes us with the cry that land is in sight, and that we shall soon be on Asiatic soil.

III. THE ISLAND EMPIRE OF JAPAN

JAPAN! What a wonderful country it is! It is the island empire of the Far East, one of the most beautiful lands we are to see during our travels. Lying in the deep waters of the western Pacific, the country winds in and out

Japanese peasants working in their rice fields. The snow-capped peak of Fujiyama, "the Peerless Mountain," towers above them. Its beautiful curves have made it a favorite subject in Japanese art.

like a snake from southwest to northeast for a distance of more than two thousand miles. This snake, made up of hundreds of mountainous islands, drags its length through almost every climate known to man. Its tail, formed by the island of Formosa, lies in the warm waters just above our Philippine Islands, flapping, as it were, upon the Tropic of Cancer, and making Japan next-door neighbor to us in the Philippines.

Farther north, the snake sinks the lower part of its body under the ocean, a green island speck showing out here and there, and then rears it up for eleven hundred miles in the islands of Kiushu (kyo͞o′sho͞o), Shikoku (shē′kō-ko͞o), and Honshu. It has every gradation of climate of the temperate zone. Its gigantic head, Hokushu, or Yezo (yĕz′ō), lying in the cold waters of the northern Pacific, is shrouded in snow during the long winter months and is at times bedded in ice. Still farther north, running out like a horn from one side of the head, is the lean Kuril group, which almost reaches Kamchatka in Russian Siberia. On the other side lies the island of Sakhalin (sȧ-kȧ-lyēn′) of which only the southern half belongs to Japan.

We can get a good idea of the snake and just how it lies by lifting it to the other side of the globe and dropping it down into the waters of our eastern coast. We shall put Formosa just below Florida and not far from Cuba, and let the islands run northward along our Atlantic coast states, crossing Nova Scotia and Newfoundland, and ending at the Strait of Belle Isle, a little north of where the St. Lawrence enters the ocean. In this comparison the peninsula of Korea, or Chosen, which belongs to Japan, would remind us of our peninsula of Florida.

The most important part of the empire is Japan Proper, or the three large islands of Honshu, Shikoku, and Kiushu.

in the middle of the chain. They contain all the big cities and most of the people. It is there that much of our time will be spent. The climate of this section is delightful, for the air is so loaded with moisture that even in winter the land is emerald green. Now and then the snow falls on the northern part of the island of Honshu, but the green grass shows through the snow, and the plum trees are in blossom in the middle of our winter. The country has a plentiful rainfall, the average throughout the empire being more than sixty inches per year.

Japan is a land of forests, having salable timber in every large island from Sakhalin to Formosa. It is a country of flowers. The people call it the land of the chrysanthemum, and the camellia and magnolia grow wild upon its green hills. While the cherry tree, which is cultivated for its blossoms, is blooming, the Japanese have picnics, when old men and old women, young men and maidens, and even the children, wander about through the orchards, and, inspired by the beauty of the blossoming trees, write verses of poetry which they tie to the branches.

There is no other land with such a great variety of beautiful scenery. The whole of Japan is made up of mountains and valleys, being traversed by two mountain chains; one of these extends southward from Sakhalin, and the other, rising in China, extends northeast from Formosa. The two ranges meet in the middle of Honshu to form the Japanese Alps, dividing the country into Northern and Southern Japan. Many of the mountains are lofty, and all are so clad with verdure that one can hardly believe the whole country was once made up of volcanoes. The highest peak in the empire is that of Niitaka (nē-ē-tä′kȧ), fourteen thousand feet above the sea. It is situated in Formosa, which has six other peaks of more than ten thousand feet,

Japanese girls in a grove of cherry trees. Cherry-blossom time is celebrated in Japan by picnics and festivals.

while there are in Japan Proper five other mountains almost two miles in height.

As we near the coast on our steamer, the sight that first meets our eyes is a white mountain cone hanging like a silver cloud in the western horizon. It increases in size as we come nearer, and a long hazy blue line of coast shows below it through a thin veil of mist. That cone is Fujiyama, or Fuji (fo͞o′jē), the famous sacred mountain of Japan. It is about twice as high as Mount Washington, and is covered with snow most of the year. Fuji is a quiescent volcano, which may some day burst forth again. We have seen it many times in Japanese prints.

As we come nearer still we can see the vapor rising from another volcano on an island to the south, and we are told that we shall be traveling in and out among volcanic islands as long as we stay in Japan. The country has about fifty steaming volcanoes, and there are others which may at any time break into eruption. The islands, like most volcanic countries, have also many hot springs.

A land like this is sure to have earthquakes, and Japan has more than a thousand every twelve months, but most of the shocks are so slight that they can be detected only by instruments made for that purpose. In the past, the people believed that the trembling of the earth was caused by a gigantic fish which now and then bumped its nose or struck its tail against the shores in its anger. To-day the Japanese have as correct a knowledge of earthquakes as any other people. They have greatly improved the seismograph, which enables us to detect the earth's vibrations, while connected with the Imperial universities are professors who have made a special study of earthquakes and can tell us more about such things, perhaps, than any other persons in the world.

Indeed, it is quite likely that we may feel an earthquake during our tour, and if it should be a serious one, I am sure none of us will ever wish for another. About two centuries ago an earthquake destroyed the Japanese capital, burying nearly two hundred thousand people in the ruins. The same city had an earthquake in 1855, during which fifty thousand houses were thrown down and many people killed.

In 1894, during one of my visits to Japan, I narrowly escaped death from an earthquake. Many of the houses of Tokyo were thrown down, the Parliament Buildings were damaged, and the home of the United States minister was almost wrecked. At that time the ground rose and fell like the waves of the sea. When the first shock came, I was sitting in a room on the second floor of a large office structure, talking with one of the government officials. All at once the walls moved to and fro and the floor trembled under my feet. At the same time the clerks began to scurry through the halls and my Japanese friend cried out:

"It is an earthquake! Come, we must run!"

We did so, only to see the greater part of the building fall to the ground immediately after we had left it. Since then I have visited Japan several times, and have felt many slight shocks, but none which has caused any great damage or loss of life. I have had earthquake experiences also in other lands, and at such times I always feel much like the boy in James Whitcomb Riley's poem describing an earthquake:

> Where's a boy agoin'
> An' what's he goin' to do,
> An' how's he goin' to do it,
> When the earth busts through?

An island empire like Japan must have many fine harbors. The chief farms and factories are nowhere far from

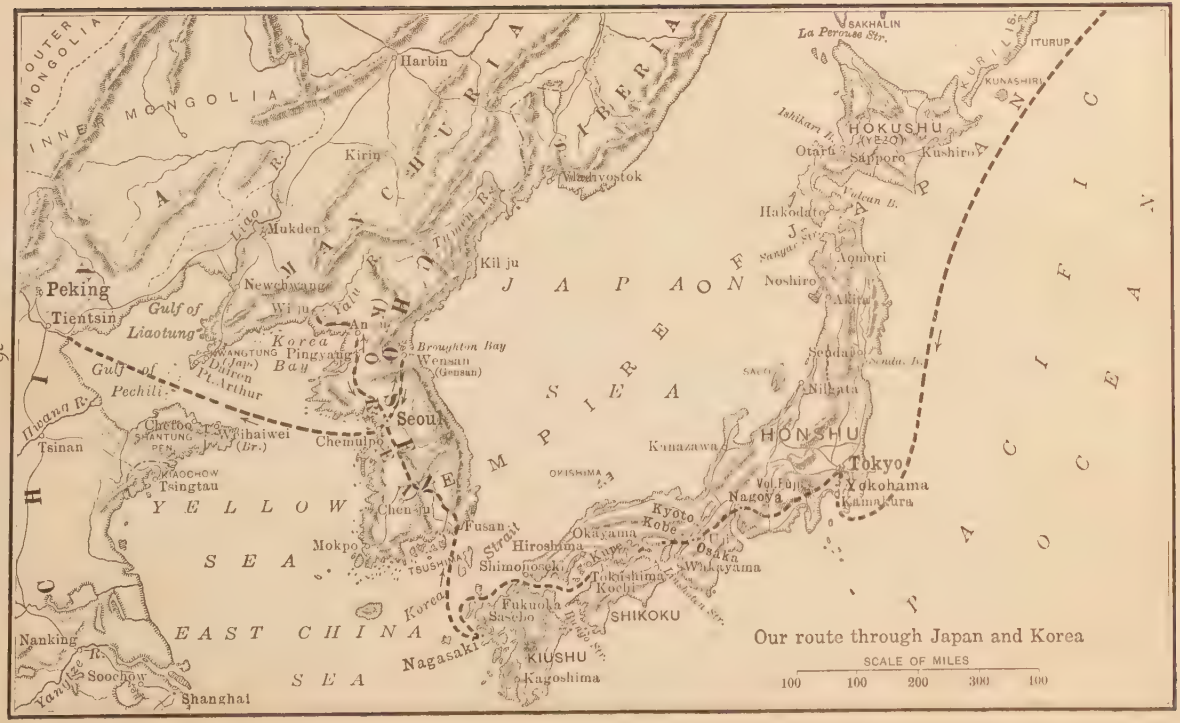
Kobe, one of Japan's important seaports. It is about as large as Pittsburgh.

the sea, so the people can send their products to market cheaply. There are sixty ports at which foreign steamers call. The chief harbors are Yokohama, the port for Tokyo (tō′kĕ-ō); Kobe (kō′bĕ), the port for Osaka (ō-zä′kä); and Nagasaki (nä-gä-sä′kĕ), the port nearest China. Almost every island has beautiful bays. West of Kobe is the Inland Sea, a narrow strip of the ocean, two hundred and forty miles long, almost shut in by islands. It abounds with inlets and harbors in which the water is quiet all the year round. These excellent harbors have aided in making

the people a seafaring nation, and their ships now go to all parts of the world. Japan has almost three thousand steamers and more than thirteen thousand sailing vessels. It has regular lines across the Pacific to the United States and South America, and to the West Indies and our Atlantic states by the Panama Canal. It has steamers to Australia, India, and Europe by the Suez Canal, and smaller steamers that ply along the coasts of Asia and up the Yangtze River far into China. Indeed, all the chief ports of the world are reached by the merchant marine of Japan.

Another interesting feature of Japan is the ocean currents which wash the shores of the islands, affecting the climate at all times of the year. One of these is the Kuro-Siwo (kōō′rō-shē′wō), or Black Current, whose waters in fine weather are indigo blue, and on cloudy days ashy pale. The warm Kuro-Siwo might be called the Gulf Stream of the Pacific. It acts like a kind of hot-water heating plant for the eastern side of the islands along which it flows. At the same time the western shores are cooled by chill ocean currents flowing down from Siberia. But these currents bring vast numbers of fish into the Japanese waters, giving employment to several millions of fishermen, who use more than four hundred thousand boats in the work. The fish are delicious, and we shall eat many of them while we are in Japan.

But let us take a closer view of the islands which compose the Japanese Empire. Many are mere rocks jutting out of the ocean, some are no bigger than a good-sized farm, and others are as large as some of the states of our Union. Altogether they comprise enough territory to support many millions. The total area of Japan is about two hundred and sixty thousand square miles. It is more than twice as large as Great Britain and Ireland, and almost



Our route through Japan and Korea

SCALE OF MILES

100 100 200 300 400

as large as our state of Texas. The five largest islands, running from Formosa to Yezo, contain most of the land. Formosa is about a third the size of Virginia; Shikoku and Kiushu, taken together, equal West Virginia; Yezo is as big as South Carolina; and Honshu is about as large as New York and Ohio combined. In addition, on the mainland of Asia, is Korea, which is about twice the size of Ohio.

Sakhalin, Yezo, and Formosa have the same relation to the rest of the empire as our partially settled territories have to the more populous states of the Union. Yezo might be called the Japanese Alaska, and has among its population a few natives, called Ainus (ī'nōōz), who are not much more civilized than the Eskimos. They live in rude huts and have so much hair that they have been nicknamed the hairy men of Japan. Korea, or Chosen, which was made a part of the empire in 1910, has seventeen million people. They are a nation different from the Japanese. Formosa, which was gained from China by war, has almost four million inhabitants. Among them are many Chinese, and there are some savages, living in the mountains, who are head-hunters. Formosa produces a great deal of rice, camphor, and tea.

Japan Proper has altogether more than fifty-seven million people, and with Korea and Formosa, more than seventy-eight millions. Most of the population is on the island of Honshu, which is so large that the people speak of it as the mainland. In Honshu, the heart of Japan, is Tokyo, the capital, where Parliament meets and where the Emperor lives.

Upon Honshu the chief events of Japanese history have taken place. It has been the residence of the emperors since the days of Jimmu Tenno, who is said to have lived about 660 B.C. It was the seat of the revolution of about

Docks at Yokohama. More than half the imports and exports of Japan pass through this port.

half a century ago, through which Japan came out of her seclusion and made herself one of the great powers of the modern world. It was of this place that Marco Polo wrote when he returned from China bringing his stories of Cipango (sĭ-păŋ′gō), an island off the eastern coast of Asia, which was loaded with gold, and it was this land that Christopher Columbus hoped to reach first when he started out on his new route to China and discovered America. We shall look in vain for much gold in Japan, although Marco Polo said that the very dogs of the country wore golden collars, and that "the roofs and floors of the Emperor's palace were entirely of gold, the latter being made in plates like slabs of stone, a good two fingers thick."

The islands of Japan have iron, copper, and silver, and large deposits of petroleum and coal. Some of the coal mines extend far out under the sea, and there is one, in Kiushu, near Nagasaki, that has more than fifty miles of tunnels under the ocean, some of them lying sixteen hundred feet below the surface of the water.

IV. YOKOHAMA, A JAPANESE SEAPORT

AT the island of Honshu we come to anchor at the close of our voyage. We have left the open sea and entered the great Bay of Tokyo, and are now lying inside the breakwaters in the harbor of Yokohama, surrounded by shipping from all parts of the world. There are Japanese steamers from China, Formosa, and Siberia, lying at anchor; British vessels that have come from Southampton and Liverpool by the Mediterranean Sea, the Suez Canal, and the Indian Ocean; French steamers from Bordeaux and Marseille; and craft of various kinds from the ports of Europe, Australia,

South America, and the United States. We see English, French, and American men-of-war belonging to the squadrons these nations keep in this part of the world, and many strange-looking junks from different parts of Japan, with sails ribbed with bamboo poles. There are also Japanese steamers coming and going, as well as fishing craft and market boats from the waters near by. Gay steam launches from the hotels have gathered around our ship, and, moving in and out among them, are little passenger boats called sampans, paddled by bronze-skinned men who beckon us to jump in and ride to the shore.

We wait until the health officers have examined us to see that we have no infectious diseases, and then give our baggage to the brown men in the sampans. They stow it away and lend us a hand as we step into their boats. It is only a short trip to the wharves, so that within a few moments we are at the custom house, where clerks, looking for opium and goods subject to tax, examine our trunks.

Leaving the custom house, we first notice a crowd of jinrikisha (jĭn-rĭk′ĭ-shä) men waiting to be hired. They are lusty brown fellows dressed in loose-fitting shirts and short tights of blue cotton. They wear stiff round hats covered with blue cotton that look just like butter bowls turned upside down. Their legs are bare to the thighs, save for the straw sandals held on their stockingless feet by straw ropes across the insteps and toes. Each man stands by his jinrikisha and motions us to get in, pointing to his stout legs as though to say he can go very fast.

As we take our seats we see other jinrikishas dart by us filled with all sorts of people. Some are occupied by ladies and gentlemen, others by children going to school, and still others by business men on the way to their offices. The jinrikisha is the cab of Japan. It is like an old-fashioned

A jinrikisha, or "ricksha" for short. Its wheels have rubber tires and its top can be put up as a protection from rain or sun.

baby carriage with two wheels twice as high as those of a bicycle. Its shafts are just wide enough for a man to stand between them; and it is usually pulled by one man, although he is sometimes aided by another who pushes behind.

Some of the best runners can drag a jinrikisha carrying one passenger eight miles an hour, while many will travel almost as fast as a horse. Since the rate per hour is only twenty-five cents, we can drive our human steed all day long for two or three dollars.

We explore Yokohama in jinrikishas. We ride around the Bund, the wide road skirting the sea, behind which are the principal exporting houses, clubs, and hotels. We are then pulled through Benten Dori, the main retail street, and go across the Grand Canal into Moto-machi. We also take short tours into the country, passing by miles of queerly shaped houses, many of which have windows and walls of white paper. We spend some time in the stores, go to the post office for our mail, and then come back to the hotel for the night.

Yokohama is now one of the great ports of the world. It handles most of the silk shipped out of Japan, and is the chief port of entry for all American goods except cotton. The city, which is growing rapidly, is now somewhat larger than Cincinnati. The place is especially interesting to us because it marks the beginning of our relations with the Japanese people and the opening of Japan to the world's trade. About the middle of the last century, when Yokohama was but a small fishing village, Commodore Perry landed here and made the first treaty between Japan and the United States. Before that, the Japanese had refused to allow foreigners to come into their country. They knew little about us and our civilization, and did not care to trade or associate with the rest of the world.

When Commodore Perry showed them the presents he had brought from America to give to the Emperor, they were greatly surprised, especially when they saw some telegraphic instruments and a toy railroad train. The

Japanese had never heard of such things, and it was hard to make them believe that they were of practical value. They opened their eyes wide when they saw that messages could be sent over the wires in their language quite as readily as in English. They were so anxious to ride upon the toy train that, in order to show how it worked, the United States sailors laid a circular track outside Yokohama, and the little cars were run around this, carrying a few passengers each trip. The cars were so small that there was not room in them for all who wished to ride at one time, but many Japanese climbed upon the roofs and held on tight, their gowns flapping in the breeze as the tiny steam engine carried them flying around the track.

To-day Japan has trunk lines of railway connecting all its chief cities, and electric cars in the principal towns. There are also automobiles and motor trucks. The country has thousands of telegraph offices, and its people send telegrams by the tens of millions a year. Both the telegraph and railway systems belong to the government. They are well built, and are run at a profit.

When Commodore Perry landed, Japan was doing almost no business with the rest of the world. Its people were backward in all phases of modern civilization. To-day Japan is considered one of the great powers of the world. It is one of the chief exporting and importing nations. Its commerce amounts to many hundred million dollars a year, and several thousand foreign vessels annually enter its harbors to bring in or take away goods. From being the most secluded of nations, it has become one of the most open and hospitable. It now welcomes all strangers and trades with all countries. It has an enormous trade with the United States. The Japanese are noted for their courtesy and refinement. They are active and progressive,

Serving tea in a Japanese home. The people sit on the floor, as there are no chairs.

and their influence and strength are very great in Asia. Their manufactured goods are to be found in every country, and they compete with us and the nations of Europe in every market on earth.

V. A DAY IN A JAPANESE HOME

THE best place to study a people is in their own homes, and we can learn much by spending a day in a Japanese house. These people live simply, and, although there is some difference in the comforts of the rich and the poor, the home of the well-to-do family we shall visit will serve as a type for Japan.

We take jinrikishas and soon reach our friend's dwelling. It is an unpainted frame building of two stories, with a heavy roof of black earthenware tiles, supported by gray wooden posts resting upon stones. We can see right through the house and get a glimpse of the beautiful garden behind it. The outer walls have been pushed back for the day, and the air rushes through on all sides.

We see almost the whole house before we leave our jinrikishas and wonder at first if the family has not moved away. The rooms are bare, and there is nothing like our American furniture in sight. Where are the tables? There are none, for the Japanese do not use tables like ours. Where are the chairs? Those cushions which lie on the mats take their places, for these people prefer to sit on the floor.

How clean everything is! The road at the front is well swept. We can see ourselves in the shining strip of bare boards which runs round the inner walls of the house like a

porch, and the rooms back of this are covered with matting of the cleanest white straw. This matting forms the carpet of Japan. It is not woven in strips like that sent to America, but in soft mats three feet wide, six feet long, and twice as thick as this book. Each mat is bound around the edges with black cloth, and when all are fitted closely together over the room, the floor is covered with panels of white bordered with black. The mats are the same everywhere, and the size of a room is known, not as so many feet wide and so many feet long, but by the number of mats required for the floor.

How is the house heated? There are no stoves in sight, and there is no cellar or basement in which a furnace might be hidden. The house has no chimney, and we see no signs of stovepipes. The heating is done by little brass-lined boxes filled with ashes, in the center of which a handful of charcoal is burning. These boxes are known as hibachis. They are common all over Japan. They form a poor means of heating; and, as winter comes on, the people keep warm by putting on more underclothing, so that the nation appears to be growing fatter and fatter as the weather grows colder. But how can they cook without stoves? They have little clay ovens in which they put charcoal and boil and fry their food over the coals.

Let us go into the house. As we approach, a little maid-servant comes to the front. She gets down on her knees, spreads out her hands on the floor, and bumps her head on the mats, in order to show us respect. She asks us to take off our shoes and come in. The Japanese never wear shoes in the house, and we have already learned that it would be far more polite to keep on our hats than our shoes. So, in our stocking feet, we step up into the house, and take our seats on the cushions.

Very soon some of the family come in. They bow low, kneeling down and bending again and again to the floor. As they rise, they draw in their breath with a loud, half-whistling sigh, as though they were overcome by the honor we are conferring upon them by calling. We suck in our breath as we bow in return. Then the maidservant brings in a tray, which she places before us on the floor. It contains a porcelain teapot and some tiny cups, each about the size of half an eggshell. She again falls to her knees and offers tea to us with a bow. We drink in Japanese style, sipping the tea with a loud noise to show that we like it.

But here come the children, who have been playing in the garden back of the house. They are dressed like their parents, and they bow to us in the same way. They are very respectful, for all Japanese children honor their fathers and mothers, and a bad child is considered a disgrace to his parents. The mother takes one of the little boys in her arms and rubs her cheeks against his. The Japanese do not kiss or shake hands, though boy friends and girl friends often go about with their arms around one another's shoulders.

What is that on this little one's back?

That is a doll. The little girl is carrying her baby. The Japanese mother often goes about with the baby tied to her back, and the children sometimes do the same with their dolls. As soon as a girl is old enough, she is taught to take care of her little baby brother or sister in this way, and as we ride through the streets we shall see many children with babies hung to their shoulders. A girl of eight or nine years will often carry a baby about as she plays. The baby blinks through its queer eyes at the great world around it; when it grows tired it drops its head on its shoulder and goes fast

Japanese children. The two older girls are carrying their small brothers or sisters on their backs.

asleep, while the little nurse keeps on making mud pies, playing ball, or otherwise amusing herself.

Our Japanese friends invite us to take supper with them and stay overnight. They entertain us in the parlors, which are at the back of the house. Soon they tell us that the bath is prepared, and that as the honored guests we are to have the first turn.

The Japanese are exceedingly cleanly, and every well-to-do home has its bathroom. It is a sign of good breeding to ask a guest to have his bath first. It is the custom for all the family, no matter how many the children, to bathe in

the same tub and in the same water, and for the servants to get in last. This seems strange to us, and we learn that no soap is used until after leaving the hot bath, which is used merely to open the pores of the skin. After leaving the tub, the bather has a basin of water and soap with which he washes all over, rinsing himself clean with fresh water. There are public baths in all the Japanese cities. In Tokyo alone there are more than a thousand, in which several hundred thousand people bathe daily. The cost is but one cent a bath, so that even the poorest can keep themselves clean.

The maidservant comes and leads one of us to the bathroom, a neat little room with movable walls of white pine. She pulls a section back, and he enters. In one corner a stream of cold water flows through a wooden pipe into a barrel, from which a trough carries it off into a brook in the garden. From this barrel the bather can get cold water after he is through with his bath; and with that shining brass bowl he sees on the floor he can pour cold or warm water over his body after using the soap.

The bathtub is of wood. It is much like a short, oval barrel. Under it burns a fire of charcoal with a stovepipe running up through the water at the back of the tub. A strip of white pine keeps this pipe, which is very hot, from touching the bather's body. Although the water steams slightly it does not look very hot and, having undressed, he jumps in. Whew! How hot it is! The water is almost boiling and he gasps as he sinks, half scalded, to the bottom. He climbs quickly out, with his skin as red as a beet, and the little servant who stands outside the wall and peeps in, giggles as she enters and hands him his clothes. The Japanese are fond of hot baths and people of all ages, from grandparents to babies, half scald themselves every day.

Garden outside a Japanese home. The women are eating with chopsticks.

By the time we have had our baths supper is ready, and we enjoy a Japanese meal. We sit on the floor to eat, each having his own table, which is not quite a foot high, and little more than a tray. The first course is sweet cake and candy with sake (sä′kĕ), a drink made from fermented rice. The little maidservant who brings it in kneels down and bows low as she hands it to us. Next comes a soup made

of beans, and with it raw fish cut in slices, and served with a queer sauce called soy. This is dark brown in color, and is a mixture of vinegar, salt, and fermented wheat. Then there are salads and pickles of various kinds. A dish of stewed eels follows, and after that green pears as hard as stones, so served because the Japanese like this fruit green.

The supper closes with rice and tea. The rice is brought to us in a round wooden box the size of a peck measure. It is offered again and again; for the theory is that no one need go away hungry if he has plenty of rice. The tea is served in tiny thin cups, and we observe that our Japanese friends sometimes pour hot tea into their rice.

Throughout the meal we watch our friends eat, and try to imitate them. The soup is served in bowls the size of large coffee cups. Each has his own bowl, and we sip the soup by raising the bowl to our lips. As to the fish, rice, and salad, we do our best to eat them with chopsticks, but it is no easy task. If you will balance two lead pencils between your thumb and two fingers and try to pick up bits of food with their ends, you can see how difficult it is. It takes a long time, and only the politeness of our Japanese friends keeps them from smiling as we drop the food on its way to our mouths.

The Japanese eat three meals a day; breakfast on rising, dinner at noon, and supper at sunset. They are good cooks, and many of their dishes are fit for a king. They make delicious fish soups, and serve fish in all sorts of ways. They eat but little meat, except that of fowls, and butter and cheese are not common. Rice takes much the same place that bread has with us. It is usually steamed so that each grain is separate from the others, and is eaten as a cereal or vegetable, and not as a pudding. Some of the people are so poor that they cannot afford rice, and millet

and other grains are used instead. The Japanese have delicious sweetmeats; one kind, known as midzu-ami, is much like marshmallow and is the color of honey. This is delicious; and, moreover, it is of such a nature that it will digest other foods, the weakest stomach being able to stand it. It is used also as a sirup.

After we have finished our supper, we sit with our Japanese friends a while on the floor. The neighbors come in and chat with us. We play games with the children, and the girls show us their dolls. In this way the evening rapidly passes, and at last, our callers having left, the time comes for sleep.

Now there is a commotion. The servants go out and pull the sliding walls to, until the whole building is a well-closed box, ventilated only through the cracks at the corners. They have shut up the house for the night.

For some time we have been wondering where we should sleep. We have seen no sign of a bed, and when our friends take us upstairs to the room which we are to have, we find it as bare as the parlor below. Our little maidservant, however, goes to one side of the room, and slides back a board which hides a recess in the wall. From this she pulls out armful after armful of thick comforts or quilts, and lays them upon the matting, one over the other, turning down the top one for a cover. We look about for sheets, and are told that the Japanese do not use them, but the maid gives us long cotton kimonos as nightgowns instead. We ask for pillows, and she hands each of us a block of wood the size of a brick, with a roll of soft paper on top. She shows us how to fit this under the neck, allowing the head to hang out over the edges. We try it, but find that though it may do for Japanese children who are accustomed to it, it will not do for Americans; so we roll up our coats and use them

The Japanese pillows are small and hard and are used chiefly to keep one's hair neat.

instead. The house grows quiet. Tired with our long day's sight-seeing, we are soon asleep and dreaming of home.

1. What great ocean do we cross on our way to Japan? Compare it with the other great oceans; with the land surface of the globe. How wide is it at the equator? At Bering Strait? Where is it deepest?

2. Describe our steamer. What fuel do we use and from where does it come? How long is our trip across the Pacific?

3. Locate the Japanese Empire. What parts of it belong to the continent of Asia? What three islands are the most important? What is the character of the surface?

4. What is a volcano? An earthquake? Imagine yourself in the midst of an earthquake and tell what you see. Find James Whitcomb Riley's poem on an earthquake and read it. What two great earthquakes have we had in the United States?

5. Compare Japan in size with Texas; with Great Britain; with your own state. Where are the cultivated parts of Japan? Locate the three chief harbors; the Inland Sea. What strait separates Japan from Korea? Formosa from China? What sea is between Japan Proper and Asia?

6. Compare the population of Japan with that of the United States. To what race do the Japanese belong?

7. Locate the island of Honshu and describe its importance.

8. How far is Yokohama from San Francisco? From Honolulu? From the Panama Canal? Make a trip from New York to Yokohama via the Panama Canal; via the Strait of Magellan; via the Isthmus of Suez. Go from Yokohama to Liverpool by the Panama Canal; by the Suez Canal. In each case tell over what waters you pass, the distance traveled, and the time spent on the voyage.

9. What two kinds of officers do we first meet in Japan? Why?

10. Take a jinrikisha ride through Yokohama, describing your carriage, your steed, and some of the sights on the way.

11. Who was Commodore Perry, and what did he do for the United States and Japan? When did he make the treaty with Japan? Mention some of the changes in the country and people caused by that treaty.

12. Spend a day in a Japanese home and tell what you see.

VI. TOKYO, THE CAPITAL OF JAPAN

WE go by train from Yokohama to Tokyo. There are cars every fifteen minutes. The two cities are only eighteen miles apart, with the sea in sight almost all the way. We pass through green fields spotted with blue-gowned, big-hatted men and women, half doubled over, hoeing and weeding the crops. We go by orchards of pear and plum trees, the branches of which are so trained upon framework that they form green roofs shading the ground, and by village after village of thatched houses. We see large factories on the outskirts of Tokyo, then shoot through a maze of dark-colored houses, and finally land in Shimbashi, one of the busiest parts of the Japanese capital.

Leaving the cars, we make our way with the clattering throng to the doors of the station. There are hundreds of passengers, many of whom wear wooden sandals, which

New railway station in Tokyo. Many modern buildings have been erected here in late years

clap on the stone floors as they walk. All are polite, bowing again and again almost to the ground upon meeting their friends.

Outside the station are scores of automobiles and hundreds of jinrikishas. The blue-coated, bare-legged ricksha pullers stand in the shafts, and an official at the door hands us a check bearing the numbers of the men we may call. At the same time he motions to certain of them, who trot up and offer their cabs. We fix the price per hour for the service, and then tell the human steeds that we want to see the whole city, asking how long it will take. They reply, "Several days, at least." Tokyo is one of the great cities of the world. It contains more than two million people, and its area is many square miles. It would require all morning to walk from one side of it to the other, and we should need at least a day to go over it all in an automobile.

Our guide suggests that we take a view of the city from one of the watch towers upon which men stand day and night to look out for fires. There are many such towers scattered throughout Tokyo, rising so high above the rest of the buildings that from their tops we can see the whole city. We stop at one near the station and climb up. We are high in the air, with the Japanese capital spread out below us. At the south is the blue Tokyo Bay, with many white sailing ships floating upon it, and at the north and east we look beyond the city to the green fields and trees of the country.

The town below us is like nothing we have in America. There are no tall, ungainly structures as in New York and Chicago, and no ragged streets with buildings of all shapes and sizes jumbled together, with vacant lots here and there. In the chief business center and about the Imperial

Park are some foreign structures, but most of the city is a level of one-story and two-story houses, with great temples rising out of green parks.

The houses are built along the edges of streets without sidewalks. They are roofed with black tiles, and have walls of unpainted wood turned gray by the weather, marking the streets with somber lines. Beginning at the bay, they run back into the country, bordering both sides of the Sumida (sōō′mē-dä) River and a network of canals, upon which junks and native craft of all kinds move to and fro.

Notice the lakes and the silvery waterways! Did you ever see anything more beautiful? There are trees everywhere, and here and there wide, open places, such as the parade grounds of the soldiers and the great parks surrounding the temples, or churches. That forest at the east, with the twelve-storied tower rising above it, is Ueno (ōō′-ē-nō) Park, noted for its many cherry trees, whose blossoms in spring seem to fill the air with pink clouds. It is the chief pleasure ground of the city, and contains the zoölogical garden. Near by are the University and other large schools.

On the western side of the city we can see Shiba Park with its grand temples. Right in the center is an expanse of ground, beautifully rolling, on which the palaces of the Emperor stand. They are surrounded by three wide moats, or ditches, walled with stone and crossed by great bridges guarded by soldiers. Between the two outer moats are fine modern structures of brick and stone, not unlike the public buildings of our national capital. They are occupied by His Majesty's Cabinet and many of the officials through whom the empire is governed.

But let us climb down from the watch tower and take a jinrikisha ride through the streets. Our men will go as

This store in Tokyo opens directly on the street. The city also has department stores, like ours.

slowly or as fast as we please, and we can stop where we will and get out to walk. How queer it all is! Except on the Ginza, the chief business street, and in a few other places where foreign blocks have been erected, the buildings are more like the bazaars of a fair than the substantial structures of an American city. There are but few large houses, and only now and then one which has more than two stories. The heavy ridge roofs extend far out over the walls, and the floors are high up from the ground. The outer walls are made in sections which slide back and forth in grooves. They are pushed aside during the daytime, and we can see all that goes on within. We look in vain for windows and doors. The rooms are divided by walls of latticework backed with white paper, through which the light comes. These walls are also in sections which move in grooves one inside the other. In going from one room to another, we push aside a section of the wall instead of opening a door, and we can throw several rooms into one.

The Japanese ideas of propriety are different from ours, so that we observe strange scenes of family life as we ride through the streets. Here a slant-eyed maiden is making her toilet. She has pushed back the wall of her home, and we can see her as she sits on her heels on the floor before a little round mirror and primps and powders and paints her lips red, while the people go by without noticing anything strange in her actions. Next door is a family at dinner. They sit or kneel on the floor, each with his own table, the size and height of a bootblack's box.

A little farther on we stop at a store. The merchant sits on the floor with his goods piled around him, using the floor as his counter. We sit there as we shop, hanging our feet out into the street. As we do so, the walls at the back are moved wide apart, and the merchant's family comes out

to see what we buy. The little boys have short hair, but the girls wear long hair done up just like their mother's. When our shopping is finished, we ask the cost of the goods. The various items are handed to one of the boys, who figures up the sum on a box of wooden buttons strung upon wires. By moving these back and forth he can add and subtract as quickly as we can with pencil and paper, and we find the boy's figures correct. Next we visit some of the great department stores that have been established in recent years. The floors are covered with matting, and the whole is like a museum. Here we can buy all kinds of goods, and have our photographs taken, our eyes examined, or our teeth filled.

But let us turn from the shops to the people. The streets are not narrow, and we are not jostled as we move through the crowd. The hundreds of queer-looking men, women, and children who pass us are the soul of good nature, treating us as brothers. They smile and bend low as they meet one another, and when we stop at their stores or enter their houses, they bow again and again, almost to the ground. We try to be polite in return, but the Japanese back is more elastic than ours. We soon grow stiff with the unusual motion, and feel that even the India-rubber man of the circus might wear himself out with bowing in a tour through Japan.

Clatter, clatter, clatter! What a noise the people make as they go along the street! They wear sandals of wood or straw, and their stockings are foot mittens, with a separate place for the big toe. During wet weather the sandals have blocks on the bottom about three inches high, so that the whole nation becomes that much taller whenever it rains. On rainy days the girls pull their gowns up to their knees, while the boys tuck theirs under their belts to keep them

The boys and girls of Japan are quite as fond of ice-cream cones as we are. This peddler sells them on the street.

from being spattered with mud. All the people carry umbrellas, which cover the upper parts of the body, so that the streets are filled with bare yellow legs raised upon stilts, which seem to be carrying queer-looking bundles.

The Japanese dress is peculiar. Both men and women have on long, flowing gowns, extending from their necks to their feet. These are folded across the body in front and fastened at the waist with a sash. The chief difference in the dress of the sexes lies in the sash, that of the man being little more than a belt, while that of the woman is half a yard wide, and so long that it can be wrapped several times around the waist and tied in a great bow at the back. The sash is often of the finest silk, and is the most expensive part of the costume. The gowns of both men and women are open at the front, being folded across the person and held together by the sash. Girls are taught to walk so as not to pull their dresses apart. They take short steps and turn their toes inward. One odd feature of the dress is the sleeve. This is made full and sewed up at the wrist, so that it can be used as a pocket. The colors of the clothing are exceedingly modest. Most of the people wear blacks, blues, and grays, and only the little children have on the bright, gaudy hues which many suppose to be most liked in Japan.

In recent years many of the city people have begun to wear clothing like ours. We see men dressed in gowns, with American hats on their heads and shoes on their feet, and little ladies in dresses imported from New York or Paris.

How busy every one is! The stores and houses are filled with workers. There are crowds at the shops buying goods, and peddlers by hundreds hawking their wares. There are scores of porters with great loads on their backs, and servants carrying baskets fastened by strings or ropes to the ends of poles carried on their shoulders.

We see children playing about everywhere. Many of the little ones are at work, and in some sections every house contains an industry of one kind or another in which the children do much of the labor. There are also many on their way to and from school. Of these we shall learn more, farther on in our travels.

We pass many people going to the theaters, where the plays last from morning till night, and we meet family groups bound for the temples, each person carrying his lunch, so that they may have a picnic in the groves after their prayers. Jinrikishas pass by us carrying men to the Parliament Buildings, and other jinrikishas here and there are taking bare-headed ladies out for an airing or on a round of calls.

There are few horses and carriages, but many automobiles, with now and then a motor truck chugging along. On the street cars to be seen everywhere, one may go to any part of the city at a much lower fare than in our country. We observe that the people use the cars freely.

Though we notice that modern machinery is doing away with hand labor in many of the shops, we are nevertheless impressed with the fact that human muscle is still performing a large part of the work of Japan. See that little post-office wagon carrying the mail from one side of the town to the other? It is pulled by a man in a blue jacket and tights. The dray behind it, belonging to one of the big wholesale establishments, is taking a load of goods to the train. The motive power consists of those two almond-eyed men who are harnessed in front and of others who are shoving behind with both heads and hands. Their straining muscles stand out like thick cords as they work, and the sweat rolls down their brown skins in diamond-white streams.

As we go through the side streets we see that they are still watered by hand, each householder being required to lay the dust in front of his dwelling. We observe others of the old customs, which Western civilization is fast crowding out. The stores of the main business sections are changing. They now have counters like ours and sliding glass windows. There are some large department stores, with concerts and shows to attract customers. The city is a commercial and manufacturing center, and the financial heart of the empire.

Tokyo has an excellent telephone service, and telegraph lines extend through all parts of the city. At night the main streets are lighted by electricity. Newsboys offer us their papers on every corner. We soon realize that Tokyo is now one of the world's greatest capitals, with most of the modern improvements of New York, Paris, or London.

VII. HOW JAPAN IS GOVERNED

THE object of our travels to-day is to learn something of how the Japanese Empire is governed. It is ruled by an Emperor through his Cabinet and Parliament. The Emperor is the executive, with powers somewhat like those of our President. He has the right to make treaties with other nations, and can at his will declare war or peace. His Cabinet consists of nine ministers; the Prime Minister, who is also Minister of Justice, and ministers of the Interior, Foreign Affairs, War, Navy, Treasury, Agriculture and Commerce, Education, and Communications. These ministers are at the heads of the great departments of the government, and have duties much the same as those of our department secretaries at Washington.

Business offices in the large cities of Japan have typewriters, electric lights, and other modern equipment. These stenographers, however, still wear their native costume.

When Commodore Perry came to Japan, the people had a feudal system much like that of Europe during the Middle Ages. The country was divided up into states, owned by daimios (dī′myōz), or lords, each of whom had many samurai (sä′mo͝o-rī), or soldiers. These lords and their retainers formed the Japanese army, and their commander-in-chief, called the Shogun (shō′go͞on), was the real ruler. The people were heavily taxed and had few rights. The Emperor, who was supposed to be too holy to rule, was kept

secluded in his palaces in the city of Kyoto, in central Japan.

These conditions continued for some years after Japan was opened to the trade of the world. Then the greatest men of the empire decided that the country needed a modern government. They came together, overthrew the Shogun, and in 1868 made the Emperor the actual ruler. They formed a constitution and established a Parliament elected in part by the people. Now all the laws are made by Parliament, and its members vote all the money for carrying on the government. In this way everyone has his own rights, and the Japanese are almost as free as ourselves.

The Houses of Parliament correspond to the American Congress. There are two Houses, an Upper and a Lower. The Upper House is much like our Senate, or perhaps more like the British House of Lords. It represents the nobility, most of its members being chosen from the noble families, although some are appointed by the Emperor for the services they have rendered the state. The Lower House corresponds to our House of Representatives. Its members are elected by the people, only the men being allowed to vote. Parliament meets much like our Congress, and its business is done in about the same way. The members discuss all measures relating to public affairs, deciding by a majority what is best to be done.

It is not a long ride from our hotel to the Parliament Buildings. There is a big wall around them, inside which we see automobiles, and hundreds of jinrikishas with bare-legged men in butter-bowl hats and blue tights and jackets, waiting for their employers, the members of Parliament. Upon entering we find the Houses very like those of our Congress at Washington and the scenes much the same.

Leaving here, we drive to the Emperor's palaces. His Majesty has a vast estate in the heart of Tokyo, made up of hills and valleys, with lakes, streams, and beautiful woods. As we saw from the watch tower, it is surrounded by wide moats filled with water, where great lotus flowers float upon their green leaves. On the banks of the streams are many widespreading pine trees, centuries old.

We go through the gates, and, passing soldiers and servants in European clothes, find ourselves in the home of this mighty ruler. It is very different from that of our President. The palaces consist of many one-story buildings constructed after the style of Japanese temples. They cover acres and contain hundreds of rooms. In some of them the walls are sliding screens of plate glass, moving in grooves so that they can be shoved back and several rooms thrown into one. The ceilings are decorated with the finest embroidery, and some of the walls are covered with brocaded silk, like that of a ball dress. The floors, inlaid in a sort of wooden mosaic, are covered with matting as soft as thick moss.

Passing through hall after hall, at last we reach His Majesty's presence. He is dressed in the uniform of a general of his army, and looks not unlike other Japanese we have met. He is much revered by the people. Any Japanese man or boy would give up his life for the Emperor. His soldiers rush into battle shouting his name and esteem it a glory to die in his cause. This respect for the Emperor is a part of the education of the Japanese schoolboy. In case of a fire in a school, the first thing the children are instructed to save is the promise to be true to His Majesty which is hung on the walls of every schoolroom. The people think so much of him that they keep their heads bowed as he goes through the streets.

The moat around the Emperor's palace in Tokyo. Part of it has been filled in with earth.

The Empress, also, is greatly beloved by the people. Her Majesty is at the head of many movements for the advancement of women. She sometimes visits the schools, and has established a great school of her own for the daughters of the princes and nobles.

On our way back from the palace we pass many policemen. The police have foreign clothes, much like those worn by the police of America, but carry swords as well as clubs. Sometimes their prisoners are tied with ropes while they are being taken to the jail. There are now police stations all over the empire, and life and property are quite as safe as in any part of our Union.

There are courts everywhere, and all are allowed a fair trial. The greatest penalty that can be inflicted is death by hanging, but this is only for murder or other very serious crimes. Most offences are punished by imprisonment and fines, the fines being sometimes as low as twenty-five cents.

We shall next visit the Department of War, which regulates all matters relating to the Japanese army. The country now has one of the best armies of the world, and its arrangements for military training are such that there will always be plenty of trained men for the service. We see schoolboys drilling everywhere. They begin as soon as they are strong enough to carry a gun and go through their exercises under the command of officers of the regular army. At the age of seventeen every boy becomes liable for military duty, and at twenty he becomes a soldier, serving for two or three years.

The Japanese navy is also very strong. There are naval schools for the training of officers, and great shipyards in which the largest warships can be built. A strong and up-to-date air service is attached to the navy. With this

modern equipment for defense in case of war the Japanese are well able to protect themselves from invasion by other nations and to stand up for their rights.

We find that one of the most important officers of the Emperor's Cabinet is the Minister of Communications, who manages the railroads and the postal and telegraph systems. In the past, when Japan had no means of transportation except horses or men, all letters were carried by messengers, whose chief costume consisted of a cloth about the waist and a coat of tattooing. The service was so expensive that only the rich could afford to send letters. Then, after the Japanese had opened up their country to intercourse with other nations, an American from our Post Office Department was brought out to Japan to explain the postal system in use in the United States. After he had shown the Emperor how we carried our mails, His Majesty ordered that the same system should be introduced there.

We shall meet Japanese postmen on the streets of every city we visit. They wear blue clothes, with straw sandals on their blue-mittened feet. They deliver the letters at all the houses, and collect from the mail boxes at the street corners just as our postmen do.

Our next visit is to the Treasury Department to learn something of the money of the country. The financial and banking systems are modeled after ours. These people use coins of gold, silver, and copper, and also paper bank notes, made in their own Bureau of Engraving and Printing. The unit of value is the gold yen, worth about fifty cents, but this is not coined. Each yen contains one hundred sen, or cents, and each sen ten rin. The pieces of money coined are twenty-yen, ten-yen, and five-yen gold coins; fifty-sen, twenty-sen, and ten-sen pieces of silver; and nickel coins of five sen. There are also copper pieces

of two-sen, one-sen, and one-half-sen value, the latter being worth about a quarter of a cent of our money.

The present modern banking system was introduced into Japan in 1872. Besides ordinary banks there are special agricultural and industrial banks and postal savings banks. The Japanese are a thrifty nation and their deposits in savings banks amount to about $300,000,000, over twenty million people being depositors.

VIII. JAPANESE CHILDREN AT SCHOOL

EVERYWHERE in Japan we meet children going to school. We can easily know them, for the law requires that all school children shall wear uniforms. Every boy has on a kimono over which is a sort of divided skirt falling from the waist to the ankles. They also wear caps. The girls have kimonos and very full dark-red or plum-colored skirts with heavy plaits, reaching to the feet, or rather to the foot mittens, which end at the ankles. They go bareheaded, most of them carrying paper umbrellas.

There are about thirty thousand public schools throughout the empire, with more than eight million children in attendance. There are kindergartens for girls and boys up to six years, and schools of different grades for those who are older; as well as high schools, business schools, schools of manual training, and great universities. All children are compelled by law to attend school until they are fourteen years of age, and they may go to the high schools if they wish.

As some Japanese families are so poor that they need their children to help them, a number of children are put to work in the fields, the stores, or the factories, when they

Japanese school children. Notice their thick sandals and their military-looking caps.

have passed the school age. But many thousands of boys and girls continue their education until they are grown, studying the same things that are taught in our country. After leaving the schools, not a few go to the technical schools, while some graduate at the universities.

The children have physical exercises. The boys are taught to fence with swords, and before they enter high school have military drill to fit them as soldiers. They learn jujutsu (jo͞o′jo͝ot-so͞o), which is a sort of wrestling depending on skill rather than strength. The Japanese have wrestlers

who are famous all over Japan. They have Olympic games, in which the Chinese and Filipinos take part. The girls also are taught athletics and have school gymnastics.

The education the Japanese receive is quite as good as our own, the studies being in some respects more difficult than ours. Our alphabet has only twenty-six letters, while Japan has forty-seven. In addition, there are so many word signs in the language that an educated man must know thousands of characters. Some of the signs mean whole words or short sentences, and there are queer ends and crooks which have to be learned.

Let us visit a primary school to see the children at study and play. It is early, and the little ones dressed in their uniforms are tramping along on their wooden shoes through the streets. Some have their books done up in bundles with cloths wrapped about them; others carry ink bottles attached to strings tied around the necks of the bottles.

Here comes the teacher. We can hear him afar off as he clatters along on his wooden sandals. He wears a gown of dark gray, and spectacles cover his eyes. When he comes up, the children bow down almost to their knees, and as they rise, suck in their breath as a polite mark of respect. The teacher does likewise. He smiles as he approaches the schoolhouse, and placing his sandals outside, walks in and takes his seat at his desk.

The children leave their shoes in the hall. They have desks like ours, and the maps on the wall and blackboards remind us of home. But see! How queer the books are! They begin at the back instead of the front, and the lines run up and down the page instead of across it. What curious letters! It is hard to tell one from another; they make us think of the characters we have seen and wondered at on the tea boxes in a grocery store at home.

A Japanese school.

We watch a class of five boys learning their letters. The teacher makes each character on the blackboard, and the boys copy it on sheets of paper, singing out its name as they do so. Do they write with pencils or pens? No, they have brushes, and paint the letters with black India ink. Notice how they hold the brushes. Their hands do not touch the paper; the brush is almost vertical, and,

instead of writing across the page as we do, they begin on the right hand side of the sheet and paint the lines from the top to the bottom. Each child has beside him an inkstone, upon which he puts a few drops of water; he then rubs the stone with a little black cake of India ink, thus making his own ink as he writes. No blotters are needed. The paper is soft and porous, sucking in the ink as it comes from the brush. They also write with pens, using for this the same kind of ink that we do.

Here is a little boy learning to count with the soroban (sō-rō-bän′). He has a box of wooden buttons as wide as this book and about a foot long, like the one we saw the bookkeeper use in the store. The buttons, which are strung on wires, represent units, tens, hundreds, and thousands, and by moving them up and down he is able to do sums in addition, subtraction, multiplication, and division, more quickly than we can with pencil and paper. It is said that any problem in arithmetic can be solved upon the soroban, even to the extracting of square and cube roots. A device much like it was used hundreds of years ago, by the ancient Romans.

In some of the schools we shall find translations of American textbooks. Many of the scholars will tell us that they think their hardest study is English, because everything connected with it is wrong end foremost. They must begin at what seems to them the wrong end of the book: they must write from the left side of the page, and the sentences must go across the page instead of up and down it. They find the pen awkward to handle, but they feel they must learn to write English, for their country is now a world power doing a great business with us and other English-speaking nations. Nearly all the books used are made in Japan, and tens of thousands are published each year.

Japan has two children's days every year, one for the girls in March, and the other for boys in May.

IX. JAPANESE CHILDREN AT PLAY

BUT how about play? Are the lives of Japanese children made up of nothing but school and hard work? No, indeed. They have quite as much fun as we do at home. There are large playgrounds connected with the schools, and the children engage in athletic sports of one kind or other. They have a recess of fifteen minutes every hour during which they go out to drill or run around the grounds as they please.

The Japanese play baseball, basketball, football, and cricket. They exercise as soldiers, and we see little companies with flags marching about here and there. The children of both sexes are good swimmers. Near Tokyo there is a lake twelve miles around, which is famous for its skating, a very popular sport in Japan. There are hot springs on the shores so that when one gets cold skating he can go over to a hot spring and warm up. Other favorite winter sports are skiing and mountain climbing in the Japanese Alps.

Toy stores in the cities and towns supply the Japanese child with all sorts of playthings, and there are peddlers who wander over the country selling nothing but toys. There are men who have sweet dough for sale and carry little ovens or stoves with real fire in them about the streets. A boy or girl can hire a stove for an hour for less than five cents, and the stove man will furnish the dough and look on while the child makes up cakes and bakes them. Sometimes the man cuts out Japanese letters, and the child bakes them and learns their names as he plays. There are also men sitting in the streets who for a very small sum mold animals, jinrikishas, motor cars, and other things out of rice paste.

Dressing dolls is a favorite pastime for girls. There are three days of every year during which the people celebrate the Feast of the Dolls. At this time all the dolls that have been kept in the family for generations are brought forth, set upon shelves covered with red cloth, and admired. Some of the dolls represent the Emperor and the Empress, and are treated with great honor, receiving the best of the food which is served to the dolls three times a day. After the three days are ended, these dolls are put away; but the little Japanese girl has other dolls with which she plays the year round.

There is also a birthday festival for all the girls, and a birthday festival for all the boys. The girls have their birthday celebration in March and the boys have theirs in May. We shall know the boy's day by seeing great balloonlike paper fish floating in the air from sticks fastened to the roof of each house in which a boy baby has been born during the year, as well as over other houses where there are older boys.

The Japanese make kites of all kinds and shapes. Their singing kites give forth a music like that of an æolian harp as they float in the air. They are steadied by two long tails, one tied to each lower corner. Others are paper dragons and babies, eagles and butterflies, and all sorts of animals.

Some kites have their strings coated with powdered glass for a length of thirty feet from the kite. This part of the string is first soaked with glue, after which the glass is dusted upon it. As the glue hardens, it holds the crushed glass, and the string becomes as sharp as a file. It is so made for kite fighting, a sport in which the boys try to cut the strings of each other's kites. As they fly the kites through the air, each tries to make his string cross that of

This Feast of the Dolls is one of the great festivals of the year for Japanese children.

his opponent's kite, and to pull it this way and that so as to cut it. The owner of the victorious kite has the right to the kite that has been cut loose.

The Japanese have games of instruction as well as of play. They have puzzle maps made of pieces of wood, and by putting them together they learn the shape of Japan and the world. They have a game much like our "Authors," called "One Hundred Verses of One Hundred Poets," which teaches them the names and best sayings of the great Japanese scholars. They have also plays that teach morals. For instance, one of their games is like our "Pussy Wants a Corner"; but in Japan the "pussy" is known by a name which represents a Japanese devil, and the corners of the room are called the Harbors of Truth, in which places only can safety be found.

Japanese children go to church much as we do at home. They often play about the churches or temples, and picnic under their widespreading trees. There are two great religions. The oldest is Shintoism, which means "The Ways of the Gods." It consists largely of the worship of the heroes of Japanese history. The other is Buddhism, one of the world's greatest religions, which was introduced into Japan about 600 A.D.

Connected with these religions are gods of many kinds. Every house has a little shrine in it, before which the people place offerings, and there are public shrines and temples in all parts of Japan. Some of these are considered especially holy, and pilgrims by the thousand, with staves in their hands and baggage tied to their backs, walk from one shrine to another to offer their prayers.

We meet Buddhist priests, who go about with shaved heads, and we spend hours admiring the temples. They are one-story structures of wood, with heavy roofs of

The Dai Butzu, or Great Buddha, at Kamakura. It is made of silver and bronze.

black tiles. Many are of vast extent, and the interiors of some are gorgeous with carvings. They have rooms papered with gold leaf and walled with paintings by the Japanese masters. They contain images plated with gold.

Japan has one statue of Buddha, known as the Dai Butzu (dī-bo͞ot'so͞o), which is among the world's great works of art. This we visit at Kamakura, a small town on the sea-coast, not far from Yokohama. It is an immense sitting figure as tall as a four-story house, made of bronze plates so fitted together that the joints cannot be seen. It has eyes of pure gold, and there is a great ball of silver in the middle of its forehead. We get some idea of its size when we find that its bronze thumbs are so large that six of us can sit on each of them and have room to spare, and that its golden eyes are each three feet in length.

Since Japan was opened to the world by Commodore Perry, Christianity has been introduced by our missionaries, and many of the people now believe as we do.

1. Locate the capital of Japan. What great city of the United States is nearest it in size? What cities of Europe are larger than Tokyo? Compare it with the largest city of South America; of Africa; with other large cities of Asia.

2. Take a ride through Tokyo and describe some of the sights. Which is the main business street? Stop at a store and tell what you see.

3. Compare the government of Japan with that of the United States. What is the Parliament? Who decides about taxes? Tell what you can about the Emperor and Empress; the army; the navy.

4. From what nation did Japan get its post-office plans? Its banking system? What coins are used? How much is a yen in United States money? A sen?

5. Make a visit to a Japanese school and describe it. What is the soroban? Mention some of the games of the children. What is the Feast of the Dolls? When is a birthday festival celebrated for the boys? When for the girls?

6. What two important religions has Japan?

X. JAPANESE FARMS AND FARMERS

WE shall now leave Tokyo for a trip through the country. How shall we travel? We might go by railroad and ride from one town to another almost as fast as on our trains at home, and we should find the cars quite as good as ours. They would be filled with Japanese, some of whom, not used to foreign benches and chairs, would be squatting on the cushions, with their feet tucked beneath them.

The railroad, however, is too quick for our journey. So we shall take jinrikishas, with two men to each carriage, and shall ride almost as fast as though we had horses. One man will pull in the shafts, while the other will push hard behind when we go up the hills, or will harness himself by a rope to the front and run on ahead. We soon get over our shame at driving our almond-eyed brothers, and poke our human steeds in the back and urge them to hurry.

The roads are good. There are villages every few miles, and we stay at night in country hotels, where we sleep on the floor. The landlord's children watch us with wonder as we come in. When we have gone to our rooms, they sometimes poke their fingers through the paper walls, and, gluing their eyes to the holes, watch the strange foreigners as they undress and get into bed. Some of them have never seen an American, so that our straight eyes and fair faces seem very queer.

We have several rainy days on our journey, during which we pass farmers and travelers wearing the waterproof cloak of Japan. This is a sort of long shawl of rice straw, which, with the big hat above it, makes the wearer look like a great yellow bird trotting along upon human legs.

This farmer is wearing a raincoat of rice straw.

We cross now and then over mountains so steep that we must leave our jinrikishas and go up in kagos (kä'gōs). The kago is a framework hung to long poles carried on the shoulders of men. We squat inside the kago cross-legged, holding on for dear life as we are carried up hill and down, over the stones, through rushing mountain streams, and along precipices.

Dams have been placed across some of the streams up in the mountains, and the water is carried from one place to another through winding irrigation ditches, so that one stream feeds many farms. The hills are often cut into different levels or terraces, over which the streams flow successively on their way to the valleys.

Japan is so mountainous that only a small part of the empire is under cultivation; yet that part gives more than half of the people constant employment, producing enough to feed the entire population. The soil is no richer than ours, but the Japanese so increase its fertility by good cultivation that one acre often yields from three to five times as much as in America. It is said that there are farms in Japan which for centuries have given two crops every year.

How queer the farms are! The whole country looks like a garden, with ponds of silvery-white water showing out through the green. There are no very large fields, the average tract being less than two acres. The crops are of all shades and colors, from the gold of ripe wheat to the green of fresh sprouting rice. We look in vain for fences, houses, and barns. The Japanese have no fences. They do not live on their farms, but in villages of thatched wooden houses strung along the main roads. There is no need of barns, as the crops are sold almost as soon as they are harvested.

There are but few sheep in Japan, and in some parts of the empire very few horses and cattle. Cattle are still employed as pack animals and ponies are used for hauling. We often pass a bullock or pony hitched to a cart and led by a big-hatted peasant. The draft horses are shod with straw shoes. The straw is so braided that it forms a round mat about half an inch thick, which is fastened to the animal's foot by straw strings running around the leg just above the hoof. Each pack horse has a stock of fresh shoes, which cost only a few cents, tied to his saddle, and the farmer changes the shoes as they become worn. In the country districts, distances are often measured by the number of shoes a horse wears out while traveling; the average horseshoe will last for a walk of eight miles.

We notice that the farmers of Japan have been less affected by our civilization than the people of the cities. They live much as they did in the past, having many of the customs of old Japan. We occasionally see Japanese women who seem very homely. Their heads are shaved close to the scalp, and they have no sign of eyebrows. Upon inquiry we learn that they are widows, who keep their heads shaved to show their grief for the loss of their husbands.

The farm hands of Japan wear but little clothing when at work in the fields. The weather is hot in the summer, and some have on nothing except flat hats of white straw, as big as parasols, and cloths tied around their waists. We meet half-naked children with tools on their shoulders, on their way to the fields. We see bare-footed women clad in big hats and blue cotton gowns. The women and men labor side by side, and the children have their share in the toil.

Japanese farmers at work. The women work as hard as the men, and little farm machinery is used

How hard they all work! They dig up the ground with mattock and spade, and plant all sorts of seeds by hand. The harvesting is done the same way, so we see that human muscle, unaided by machinery, still makes the greater part of the bread of Japan.

XI. RICE, TEA, AND SILK

THE crops of Japan are of many kinds, for the soil is good enough to raise nearly everything. Riding along the roads in our jinrikishas, we see many patches of wheat, barley, and millet, with here and there sweet potatoes and beans, and now and then a small patch of cotton. There are also thousands of rice fields, and many tea gardens.

Rice, which forms the chief food of the people, is the most important crop of the country. The majority of the world's inhabitants eat more or less rice, and for at least one third of them it is the principal food. Several thousand varieties of the rice plant are cultivated in Japan, where more than one hundred million bushels are grown every year.

Rice requires great care in its cultivation. The grains, first sown in wet seed beds, sprout in four or five days, and within a month or six weeks are ready for transplanting. In the meantime, the rice fields have been flooded, and the farmers, wading through the water in their bare feet, set out the young sprouts in the mud. During the summer they flood the fields again and again. They keep the rice free from weeds, and by the latter part of September the crop is ready for harvest.

Rice sprouts are set out in flooded fields, the men and women standing up to their knees in mud.

Rice grows much like wheat or oats. At first the plants are a beautiful green, but as they ripen they become a bright yellow. The straw is then cut off close to the ground with a sickle and tied up in little sheaves, which are hung over a pole resting on legs, so that the heads of the rice do not touch the ground. The grains are pulled from the stems by drawing the straw through a rack with teeth like a saw, and are then laid away to be husked as required. We find rice fields in all the lowlands. There are many in Honshu, Shikoku, and Kiushu, and also in Korea and Formosa.

On some of the farms, after the rice has been harvested, barley and wheat are sown as a second crop, and barley and rye are often ground up with rice and used for food. Beans are raised, while on the highlands buckwheat, millet, and sorghum are grown. The sorghum flour is made into dumplings, and the buckwheat is used for the manufacture of macaroni.

As we ride on through the country in our jinrikishas, we see many fields where the people are working among the tea bushes. Japan is one of the lands of tea, and most of its exported crop is sent to the United States, where we use more Japan tea than any other country except Japan itself. China and India also grow a great deal of tea.

The tea gardens increase in number as we go on toward the westward, and we spend a few days in Uji (o͞o′jē), near Kyoto (kyō′tō), in central Japan, where the tea grown is especially fine. It is here that much of the tea used by the Emperor is raised. One kind, known as "Jeweled Dew," is worth from five to eight dollars a pound.

The tea plant is a kind of camellia, growing much like the American box. In Japan it is carefully cultivated in hedges from three to five feet high and usually about two

Picking tea leaves.

feet wide. In a tea garden the hedges run in parallel rows from one side to the other, the rows being about as far apart as those of a potato field. The leaves form the tea of commerce. Their color is a bright green and they are shaped somewhat like those of a rose bush.

The plants produce their best tea from the fifth to the tenth year. They are plucked several times during each season, the first crop being the best. The work is done

almost entirely by girls, who put the leaves in huge baskets and carry them off on their backs.

The leaves are dried in the sun, and then steamed and dried again. That part of the crop intended for export is shipped to the tea factories, where all the moisture is taken out by rubbing the leaves about in great iron bowls set in ovens. The rubbing is done by women and men, under whose hands the leaves change their shape and become the little, hard, twisted things we buy as tea in America. After the leaves are thoroughly dry, they are sorted by Japanese girls, and then packed in boxes.

Another product of Japan which we buy in large quantities is raw silk. This comes from the silk worms, which are reared upon the leaves of the many mulberry orchards. Japan's exports of raw silk and silk goods bring in thirty times as much money as the tea exports. More than thirty million bushels of cocoons are raised in one year, the country supplying about half of all the silk used by man. The United States is Japan's best customer, and I venture to say that most of the silk in our neckties and ribbons came from these very regions in which we are traveling.

Indeed, rearing silk worms and properly feeding them to get the cocoons is one of the most important industries of Japan and China. The worms come from the eggs of the silk moth, which are laid on sheets of coarse white paper. A single moth often lays five hundred eggs, and the paper must be prepared for it and left in just the right place.

The eggs are about the size of a mustard seed, and a pale ash color. As soon as they are laid, they are put in a cool chamber until the time comes for hatching. They are then brought into a warm room and placed upon mats

Young silkworms being fed with mulberry leaves. The worms are kept on trays.

on shelves of bamboo. The temperature of the room must be just right. In many of the hatching rooms of Japan this is tested by a thermometer, but in China it is often judged by a man who strips off his clothes and comes in naked. By feeling the air upon his skin, he can tell whether the room is cold or damp; if so, it is heated with stoves.

Within a few days the eggs hatch, each producing a little black worm as fine as a hair. This baby worm, like most babies, starts life very hungry. Every half hour, for the first few days, it has a meal consisting of green mulberry leaves cut into small pieces. As the worms grow older they are fed once an hour, and when they are full grown, they need only three or four meals a day.

The silkworm reaches its growth thirty-two days after hatching, in which time it takes a sleep every four or five days. During each sleep it casts off its skin, sleeping on until a new and larger skin is formed. At the twenty-second day it begins its last or great sleep, when it raises the fore parts of its body and continues to rest in that position.

When full grown, the creature is about two inches long, as large around as a man's little finger, and amber colored. It is now ready for the work for which it was reared. Taking no more food, it begins to spin the fine silk thread from its mouth, fastening the thread to a frame upon which it has been placed. As it spins it moves its head from one side to the other, continuing this motion until its whole body has been enveloped in a tightly wrapped silk shell, or cocoon.

At the end of the two to five days required to finish its little silk house, the worm again falls asleep. It is now carried in its cocoon to a slow fire of charcoal or wood, and placed so near it that it dies from the heat. After this the cocoon is put into water. This loosens the fiber, and women and girls unwind the silk by means of rude machines worked by the foot and hand, or by the machine reels of the mills. In both processes several of the fine threads are twisted together until they form one thread large enough for weaving. Much of the silk is reeled into such thread for

Unwinding cocoons by the old method. The fine silk thread is wound on rude reels.

export; but a great deal more is spun and woven at home into the caps, coats, gowns, trousers, and other clothing used by the Japanese.

On our trip across the country we learn that the government is doing much to encourage the farmers. It has lecturers who go from district to district teaching them which crops will pay best and how to raise them. There are many agricultural experiment stations and schools.

XII. COMMERCIAL AND INDUSTRIAL JAPAN

RIDING on westward through tea gardens, mulberry orchards, and countless patches of cotton and rice, we come at last into a region that reminds us of some of the chief manufacturing centers of the United States. The cities are large, and the towns are humming with industry. Nagoya (nä′gō-yȧ) is as big as New Orleans, Kobe is as large as Buffalo, while Kyoto surpasses San Francisco in population. Osaka, which is given up to manufacturing, is larger than any city in the United States except New York, Chicago, and Philadelphia. Smaller industrial centers are scattered throughout the three larger islands. We pass through villages devoted to the making of porcelain, cotton, and silk goods, and see the manufacture of matches, paper, leather, and matting in many of the towns.

Kyoto, where we make a short stay, is famous for its silks. For a long time its people wove the most beautiful fabrics on the rudest of looms. They now have modern silk mills with all the latest inventions, run by electricity supplied by the falls of Lake Biwa (bē′wȧ) not far off. Kyoto, formerly the capital of Japan, has beautiful temples

A modern silk mill. Here the cocoons are unwound and the silk woven by machinery.

and palaces. It is one of the most interesting cities in the empire, and famous as an art and educational center.

Leaving here, we go to Osaka by motor car. In the few miles between the two towns we pass by great factories almost all the way. Osaka has nearly a million and a half people, and produces a large part of the cotton goods of Japan from raw cotton imported from our Southern states. It has great cotton factories, in which we find

many children at work. Boys and girls, not so old as we are, labor all day for a very few cents an hour. We see them tending the looms and doing light work in the spinning rooms. Bright-eyed and healthy, they look up and smile at us as we pass.

In other places we go into the factories where straw braid is made, the children sitting on the floor and plaiting the straw into the shapes for which it is used for bonnets and hats. We go through mills where the Japanese rugs of jute and cotton are woven for shipment to America, and in Kobe, the great seaport not far from Osaka, we visit a large steel works and shipyard where enormous steamers are built.

We are surprised at the skill of these people. They export goods of every description to all the world's markets. Japanese goods are made more cheaply than ours, as the wages are much lower. The people live simply, and it is said that they could easily thrive upon what we in the United States waste. In the past everything was done by hand, but they are now introducing our labor-saving inventions, and are making more goods every year.

Nevertheless, many of the manufactures are still produced in small shops. Whole villages composed of little establishments are devoted to the making of porcelain, such as is shipped to America. In these places the clay is modeled by hand, and the men and women sit on the floor and paint the beautiful and curious designs found on Japanese china. In other establishments we see boys carving rats, monkeys, and other figures out of ivory tusks. We visit shops where Japanese lanterns are made, and some in which men and boys are turning out umbrellas and fans. There are also carpenters' shops, coopers' shops, and shops of woodworkers of every description.

Making Japanese lanterns.

Among the most interesting factories to us are those making toys and dolls for shipment to the United States and Europe. Formerly, most of the toys of the world came from Germany, but during the World War the Japanese began to send their toys everywhere, and they are now making millions of dollars' worth for foreign nations every year. They are especially skilled in making mechanical toys, and also turn out toys of rubber, metal,

and celluloid as well as of earthenware, wood, and cotton. Their dolls have real hair and eyebrows, and are beautifully dressed.

As we stay awhile at each place, we notice that the Japanese workman has the equivalent of four hands and twenty fingers. He is usually barefooted, and he works so much with his feet that they serve as two extra hands. He can hold all sorts of articles steady by pressing them between the soles of his feet. The cobbler, for instance, thus makes wooden shoes. His toes are equal to ten extra fingers, and he can pick up a peg or pin with them.

We observe also that some Japanese methods of work seem to be the direct opposites of ours. There is a carpenter planing a board. He pulls the plane toward him instead of pushing it from him as our carpenters do; and when he uses the drawing knife, he pushes instead of pulling, as would seem to us to be the natural way. The American begins his house with the foundation. The Japanese builder makes the roof first. He puts its pieces together upon a scaffolding of poles, and then fills in the framework beneath. The logs are often brought to the building and the boards sawed out by hand as they are needed. In the older lumberyards of Japan the sawmill is an almond-eyed, bare-legged man, who stands on top of a log or beneath it and pulls or pushes his saw until he has cut the log into boards.

During our stay here we learn much about Japan's foreign trade. We are told that the commerce of the empire now amounts to several billion dollars a year, the exports including many articles shipped not only to China and other parts of Asia, but also to the various countries of Europe and to the United States. As we go through the factories, the men often tell us that they are working

on goods intended for us; and we learn that the United States is Japan's best customer. Japan sells us hundreds of millions of dollars' worth of goods every year, and buys of us even more. A curious feature of the trade is that a great part of our imports from Japan consists of raw silk, while a great part of our exports to her consists of raw cotton. The United States may be called the Land of Cotton, and Japan the Land of Silk. We buy Japan's silk to weave into clothes for our people, and Japan buys our cotton to weave into goods for her people, and for export to China and the other countries of Asia.

The trade between the United States and Japan is increasing, and she sells more and more manufactured goods to us every year. The Japanese are skilled in manufacturing, and of late years have been making many of the goods that they formerly bought from Europe and North America. They even ship some of these goods to us.

On the other hand, we are shipping to Japan many different kinds of machinery. She buys our chemicals, dyestuffs, and leather, and our cars and locomotives for her railways. We send her flour and wheat, and all sorts of manufactures in iron and steel. We send her minerals of various kinds, and we furnish the gasoline used in her automobiles and gas engines, and the kerosene in her lamps. Most of the Japanese are clad in American cotton, and millions of them depend for their living upon the work they have in making into manufactured goods the raw materials supplied by the United States.

There is one export in which Japan surpasses all other countries. This is camphor, a drug of which we buy many tons every year. There are camphor groves scattered throughout the central islands, and great forests of camphor trees in Formosa.

The camphor tree is an evergreen of the laurel family with a trunk somewhat like that of an oak. It grows to be fifteen feet in diameter, rising twenty or thirty feet from the ground before the branches begin. Some trees are several hundred years old.

In the production of camphor, the trees are cut down and chopped up into chips, which are then boiled until the sap and oil in them rise in a steam. This is conducted through pipes cooled by water running over them, and condenses, forming a deposit of oil and camphor. The oil is then pressed out, leaving the camphor of commerce.

From Osaka a half hour by rail takes us to Kobe, the chief seaport of central Japan. It lies at the entrance to the famous Inland Sea, through which we pass on our way to Korea. We travel in a Japanese steamer, floating among mountainous islands with hills so terraced that they look like green steps rising from the water. There are many black-roofed villages dotting the shores. We pass through narrow channels, moving in and out among Japanese craft, and at last find ourselves at anchor in the mountain-locked harbor of Nagasaki, the westernmost port of Kiushu. Here we take coal, hundreds of half-naked little Japanese women passing it in small baskets from one to another from a barge on one side of the steamer, until it is at last stored in the hold.

Our ship is lighted by electricity and heated by steam. It is small, but almost as comfortable as that in which we crossed the Pacific. The sailors and officers are Japanese, and we have many Japanese fellow passengers on board. We are almost as sorry as they at leaving Japan, and as our ship steams out of the harbor we look longingly back, and with them cry out: "Sayonara" (sī-yŏn-ä′rä), the Japanese word meaning "Farewell."

These Japanese boats are called junks. We shall see many like them in China and Malaysia.

1. Describe some farming scenes of Japan. How can the Japanese raise enough food for their people with so little cultivated land? What are the most important crops?

2. What is rice and how is it raised in Japan? In the United States? (See Carpenter's "North America.") In other countries? (See Carpenter's "How the World is Fed.")

3. What are the great tea countries of the world? Where does most of our tea come from? Visit a tea garden and describe it. Bring some Japanese tea to class; some Chinese and Ceylon tea. (See Carpenter's "How the World is Fed.")

4. From what is silk made? Which are the chief countries producing raw silk? How are the cocoons raised in Japan? In Europe? (See Carpenter's "Europe.") Bring a ribbon to class and describe its adventures from the mouth of the silkworm until now. (See Carpenter's "How the World is Clothed.")

5. For what is Kyoto noted? What falls supply the power for its factories? How is Osaka related to our Southern states? Locate Kobe. Why is it such an important port?

6. What is our chief export to Japan? The most valuable import we get from her? Mention some other things we buy in great quantities. Name some of the goods Japan buys of us. Where does camphor come from, and how is it made?

XIII. AMONG THE KOREANS

THIS morning we are in Korea, or Chosen, as the Japanese call it. We left Nagasaki in a little Japanese steamer, which after a short sail came to anchor in the excellent harbor of Fusan (fo͞o-sän′), at the southern end of the peninsula. After a night in a hotel there, we are now traveling northward by railway to Seoul (sĕ-o͞ol′), the capital of the country.

Until 1895, the Koreans were an independent nation under the protection of China. Since then, as a result of the Chino-Japanese War, in which the Japanese were victorious, they came to be more and more closely allied with Japan, until in 1910 the country became a part of the Japanese Empire. It is ruled by a governor-general appointed by the Emperor of Japan, and Japanese laws prevail everywhere. The governor-general and his officials have their headquarters at Seoul.

Korea is an important part of the empire. Not only does it extend from Manchuria so close to the principal islands of Japan that it might form a bridge from China and Siberia for advancing armies in case of war between the countries, but it is also a rich territory, with millions of people.

A Korean village.

The peninsula is about half as large again as our peninsula of Florida, with a population more than twenty times as great. It is a mountainous country of many valleys and plains. The mountains have gold, silver, copper, and lead, and in the north are large deposits of coal. The plains are covered with farms, for the soil is fertile. On our way to Seoul we pass through fields of rice, tobacco, and cotton, and learn that wheat, barley, and millet are grown

farther north. The country lies in about the same latitude as our coast states from Massachusetts to North Carolina, and produces about the same kinds of fruit. It also grows persimmons as big as the largest tomato. Many of these are brought to the stations. We buy some and eat them with spoons. The climate of Korea is delightful, and its mountain scenery is picturesque and beautiful.

On our way north we pass many villages of mud and stone huts roofed with straw and inhabited by farmers, with now and then a town made up of houses of much the same nature. There are white-clad figures at work in the fields, and stopping off at one of the towns we find ourselves among some of the queerest people we shall see in our travels through Asia.

They are not Chinese, and still they are yellow. They are not Japanese, although their eyes are shaped like almonds. They are taller than any of the Asiatics we have in America, and their faces are more kindly and somewhat more stolid. They have cheek bones as high as those of an Indian, and their noses are almost as flat as a negro's. They belong to the yellow race, but they have many characteristics of their own. They are stronger than the men we saw in Japan. Here comes one trotting along with a cartload of pottery tied to his back. During our travels through the mountains, men like him will carry trunks weighing hundreds of pounds for us, for a few cents a day. They will fasten them to an easellike framework of forked sticks hung from their shoulders, and will trot up the hills as though they were merely loaded with feathers. They are Korean porters, who, notwithstanding the railroads, still carry much of the freight.

As we continue our travels we shall find that Korea has many classes of people corresponding to those that

were here before the Japanese took possession of the country and introduced western ways. For ages prior to that time the nation was ruled by a king and the nobles, who lived in great luxury by taxing and oppressing the rest of the people. They strutted about in gorgeous silk gowns and spent their whole time in smoking and chatting, considering it beneath their dignity to do any manual labor.

There were other classes who dressed in gowns of cotton and silk. These were government clerks, scholars, farmers, merchants, and laborers, each class with its own costume and ways. Even to-day most of the men and women wear gowns, and many of the men we meet are clad in white cottons. Others have on full pantaloons tied in at the ankles, and stockings of cloth so padded that they almost burst the low straw shoes they wear. We see gowns of light green and rose pink, and some as blue as the sky.

But queerest of all to our eyes is the headgear. Some of the men wear great bowls of white straw as big as umbrellas, while others have their heads almost bare save for the little hats of black horsehair which sit on the crown and are fastened by ribbons tied under the chin. As the horsehair hat is the headgear of a gentleman, it is prized more highly than any other article of dress. It is so light that it seldom weighs more than two ounces.

In the old Korea every style of hat had its meaning. Observe that one of bright straw coming toward us. It is as big as a parasol, and seems to be walking off with the man half hidden beneath it. That hat is worn by a mourner, who for three years can use no other kind. He wishes to appear humble, for he believes that the gods are angry with him and have caused the death of his father. For the same reason he is clad in that gown of

light gray, and holds a screen in front of his face to show his great grief. If, at the end of his mourning, his mother should die, he must mourn three years longer, during which time he will not dare to go to parties, and should not engage in business, or marry.

Korean bride and groom.

But here come two men with no hats at all. Their hair is parted in the middle and hangs in long braids down their backs. See how meek they look, and how they slink along half ashamed. They are Korean bachelors, and until they are married they will have no rights that anyone is bound to respect. According to the old custom, only married men might have hats in Korea, and only they had the right to put up their hair in a topknot on the crown of their heads. Many unmarried men and boys still wear their hair down their backs tied with ribbons so that they look more like girls than boys.

We ask the guide to show us the women. He tells us that Korean ladies are seldom seen on the streets, and that it is only lately that they have gone out at all except in closed carriages. He points out, however, some queer-looking creatures who have green cloaks thrown over

their heads which they hold tightly in front of their faces, with just a crack for the eyes. These are women of the poorer classes, many of whom turn their backs as we see them at work in the fields.

All these strange customs are changing, for under Japanese rule the Koreans have begun to adopt modern ways. Many of the town people now cut their hair short, the boys who attend public schools being required to do so. The women are gradually coming out of their seclusion, and we shall meet many girls on the streets going to school. We shall find some of the boys and men wearing clothing like ours, and some wearing a mixture of Korean, Japanese, and European costumes.

But we are now approaching the Korean capital and on climbing the hills in the distance, can see the walls of Seoul. This city lies in a basin surrounded by mountains, which in some places are as arid and ragged as the wildest peaks of the Rockies, and in others as green as the Blue Ridge or the Adirondacks. It is surrounded by a great wall as tall as a three-story house, and so broad at the top that two automobiles abreast could easily be driven upon it. The wall was built about five hundred years ago, for the defense of the city. The railroad station is outside the gates, and before going in we climb to the top of the wall for a bird's-eye view of the city.

What a strange sight! Imagine three hundred thousand people living in one-story houses; picture sixty thousand houses, most of which are of stones and mud with roofs of straw thatch!

As we look over the city, it makes us think of a meadow filled with haycocks interspersed here and there with tiled barns. There are groups of more imposing barns in a park in the center and under the mountains at the back.

The haycocks are the huts of the poor, the heavy roofed barns are the homes of the rich, and the great wooded inclosures surround the palaces.

The rich live in houses much like those of Japan, standing back from the street in large yards. The rooms in these houses are separated by movable walls backed with oiled paper, and they are heated by flues which run under the floors. Heat is needed during the winter months, when the average temperature is about that of New York city.

The huts are built in the shape of a horseshoe, with one side of the shoe resting on the street and the other running back into the yard. The doors of such houses are often so low that one must stoop to go in. At the bottom of each door there is a hole cut out for the dog to go in and out by. Every Korean house has its own dog, which knows a foreigner by his smell and barks at him as he goes through the street.

But let us take our field glasses and look again at the city below us. As we examine it in detail, we can see here and there many foreign buildings rising above the thatched huts. Some of these are government offices, and others are churches and schools. There are many one-story stores, half Japanese and half western in style. In the center is a red-brick structure devoted to the Y. M. C. A., built for the Koreans by an American, and at one side of the town, close to the wall, is a section filled with Japanese houses. Other modern buildings are now going up, and we notice lines of telegraph and telephone poles here and there. The whole city is changing, and the time may come when the thatched huts will disappear and buildings like those of Japan will take their places. Jinrikishas are now in use everywhere, and motor cycles and automobiles may be seen on the streets.

We find vegetables of all kinds for sale in the markets.

XIV. IN THE CAPITAL OF KOREA

WE have taken jinrikishas and are riding about through Seoul, dragged along by frowsy-headed, almond-eyed, yellow-skinned men in long coats and fat baggy trousers. A pompous Korean who speaks English acts as our guide. We ride through the wide avenues that cut the city in quarters, now and then leaving the rickshas while we explore the side streets. We start out early, and for the first hour or so find the town full of smoke. Each of the huts has a chimney that juts out into the street

Korean peddlers. The boy at the right is selling cakes and sweetmeats. Notice his Korean costume, and the way in which the tray is carried. The man in the background is wearing a long gown and a curious wide hat.

about two feet from the ground. The people use straw for fuel, and the smoke is now pouring forth, for all Seoul is cooking its breakfast. It makes our eyes smart, and we have to look sharp to keep out of the way of the porters and others who are going to the markets at the foot of the chief business street. We follow the crowd, and soon find ourselves near one of the great gates in the wall, one of the busiest places in Korea.

Here is one of the markets, with thousands of men in all sorts of costumes buying and selling. There are booths devoted to rice, and others to corn, barley, and wheat. Some of the market men have fish fresh from the sea, and some sell beef, mutton, and venison. We see many fresh vegetables, and not a few peddlers who have baskets of red peppers before them. Little boys go about selling candies carried on trays attached to their waists by ropes over the shoulders. Others have chestnuts, which they roast upon pans of charcoal and sell piping hot.

Many of the articles in the market seem to us strange. Eggs, for instance, are sold by the stick, ten being laid end to end and wrapped around with long straw so tightly that they stand out straight and stiff. Among other odd things are the tobacco pipes, most of which have stems as long as ourselves. To have a long pipe is a sign of a gentleman. It shows that he has a servant, for since he cannot reach out to the bowl with the pipestem in his mouth, he must have some one to light it. And then the brass bowls used as cooking and eating utensils! They shine like gold, and are among the most beautiful wares in the market.

See that man in the white gown and black hat, with those wooden clubs piled up around him! They look so much like baseball bats that we wonder if our great Ameri-

Mother and daughter doing the family ironing. Flatirons are now coming into use instead of the old-fashioned clubs.

can game has not come out to Korea. We ask the guide, and he tells us that the club here holds the place that the flatiron has in America. The family washing is done in cold water and dried on the grass. Formerly it was taken to the streams and washed there, but now Seoul has water works and the hydrants furnish the laundry supply. After washing, each garment is taken into the house and wrapped around a stick. This is then laid upon the floor, where one or two women sit down before it and pound upon the cloth with these wooden clubs until they make it as smooth and as glossy as could be done in an American laundry. Our guide points to his own gown of snow white, and says it was ironed in the old way. As we ride on through the city we often hear the song of the ironing clubs, a

musical rat-tat-tat that may be heard at every hour of the day and during the greater part of the night. The clothes are ripped apart before they are washed. It takes a long time to iron them, after which they must be sewed together again; so you see Korean women have plenty to do. In recent years these ironing sticks have been giving way to flatirons like ours, and in the cities electric irons are sometimes used.

Leaving the market, we walk through the crowd up the street until we come to a little temple that contains the great bell formerly sounded for opening and closing the gates. This is the business center of the native city, the streets surrounding it being thronged with merchants and peddlers, and dandies and loafers, from sunrise to sunset. The stores are wide open, the merchants sitting inside them, in white gowns and black hats. Most of them smoke as they wait for the customers.

Running out from the streets here and there are little bazaars, or covered alleys, in which are more stores. The merchants sit cross-legged on ledges in front, and bring out the goods from behind as the customers order. They seem in no hurry to sell, and are content to smoke and chat if no buyers come. They do not like to sell much to one man; for they say that if they should dispose of all their goods, they could not keep their stores open.

In addition to its native shops, Seoul has now many Japanese stores, some like those we saw in Japan, and some with glass windows like ours. The Japanese, who are opening mercantile establishments in all the cities, do most of the business. They control the exports and imports and collect all the customs. From them we learn that the principal exports are silk cocoons, raw cotton, rice, beans, cowhides, and cattle, and also gold and coal.

But suppose we visit the schools. They have been greatly changed within recent years, until those most common to-day are much like the schools we saw in Japan. Many of the children go to schools taught by the missionaries from our country. Like the Chinese, the Koreans worship their ancestors, and some are Buddhists. Many have been converted to Christianity, and there are numerous Christian churches and schools.

The people have all the advantages of the new civilization. The Japanese are building good roads throughout Korea. They have railways and telegraph lines connecting all the chief towns, and the mails go everywhere. They are improving the ports and building lighthouses along the coast. The capital is lighted by electricity, and several daily newspapers are printed in Seoul.

In the past most of the mountains were stripped of their forests, so that the rains washed the soil down into the valleys. The Japanese have replanted these regions and thousands of fine trees are now growing there. They have started agricultural experiment farms and many new crops are being brought in.

Leaving Seoul, we go to different parts of Korea on the railway, stopping off now and then at the stations to take trips into the country. We pass through thousands of rice fields and cross the mountains, being careful not to travel through the woods at night for fear of the tigers. We make trips to the gold mines and copper mines and visit the graphite mines, which are said to be of great value. We go also to Pingyang (pĭng-yäng′), the second city of the country, to explore the coal regions. The scenes here remind us of Seoul. From Pingyang we take the railroad to the Yalu (yä-lo͞o′) River, on the border of Manchuria, and thence come back to Seoul.

The Ainus live in the northern islands of Japan. Their rude thatched huts have no chimneys.

We make one trip across the mountains to the east coast and the port of Gensan (gĕn-sän′), where the Japanese steamers call on their way to Vladivostok, in Siberia. It ranks as one of the three chief ports of the country, which are Fusan, Gensan, and Chemulpo (chĕ-mŭl′pō), the port for the capital. Chemulpo, where we shall take ship for China, is on the Yellow Sea, twenty-eight miles from Seoul.

1. Locate Korea. Compare it in size and character with Florida. (See Carpenter's "North America.") Why is Korea important to Japan? What are the three principal ports?

2. Who are the Koreans? To what race do they belong? Tell something about the dress of the men, women, and children.

3. What is the capital of Korea? Compare it in population with one of our American cities. Describe the houses and streets. Visit the markets and tell what you see.

4. Mention improvements made in Korea by the Japanese.

XV. CHINA — GENERAL VIEW

OUR next travels are to be among the Chinese, one of the most important peoples of the world. They number one fourth of the human race. There are so many of them in Asia that if all the men, women, and children of that continent could be divided into baseball nines, almost half of every club would be Chinese. The population of China Proper, which is three times as great as that of the United States, including Alaska and all our islands, is more than four hundred millions. That of the Chinese dependencies, which are Mongolia, Sinkiang (sĭn-kyäng′), and Tibet, is about thirty million.

The Chinese Empire, as it was formerly called, or the Chinese Republic, as we must now call it, comprises about one fourth of the territory of Asia. It consists of a great block of mountainous land, with many valleys and some very large plains, beginning at the Pacific Ocean and running more than halfway across the continent.

Of this vast territory, comprising almost four million square miles, less than one half belongs to China Proper, the country which is to form the next scene of our travels. The remainder consists of colonies and dependencies inhabited by other nations, who lead a different life and have different manners and customs. The countries which they inhabit are different. They consist for the most part of the high, dry plateau which forms central Asia. Mongolia, which is over one third as large as the continent of Europe, is mostly taken up by the Desert of Gobi (gō′bē). Its people are nomads who live in tents and wander about with their flocks. They number less than two millions. Tibet, which we shall visit later, is about one third the size of Mongolia. Nevertheless, it is almost

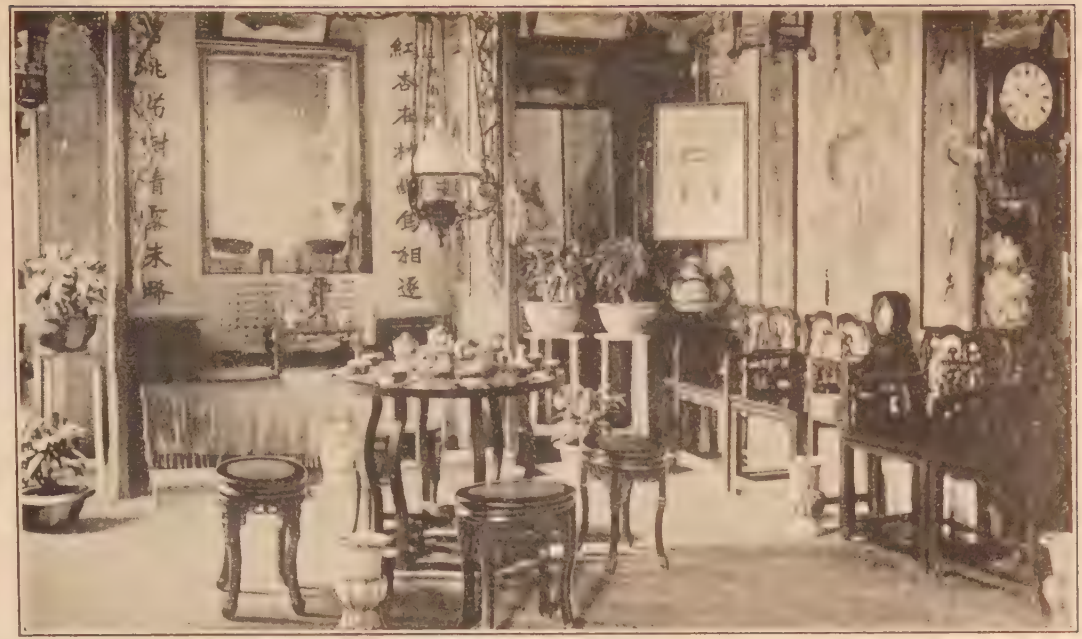
CHINA
SCALE OF MILES
0 100 200 300 400 500 600
Irkutsk
Baikal L.
Urga
Ulliasutai
Kobdo
Kulja
Urumtsi
Barkul
Hami
Khotan
Yarkand
Kashgar
Aksu
Lassa
Mt. Everest
Hymalaya Mts.
Brahmaputra R.
Ganges R.
Calcutta
DELHI
Yunnan
Chungking
Chengtu
Hankow
NANKING
Shanghai
Peking
Tientsin
Mukden
Kiaochow
Ningpo
Foochow
Canton
Victoria
HONG KONG Br.
WANGCHOW-WAN Fr.
LUZON
Amoy
Swatow
Haikow
Hainan
Yangtse R.
Si Kiang R.
Hwang Ho R.
Liao R.
Amur R.
Lena R.
Yenisei R.
Obi R.
Irtish R.
Ili R.
Tarim R.
Lop Nor
Koko Nor
Karakoram Mts.
Thian Shan
Kuenlun
Altai Mts.
Stanovoi Mts.
Yablonoi Mts.
Khingan Mts.
Nan Shan
Tsin Ling Shan
Himalaya Mts.
Hindu Kush
Pamir
Balkash L.
Lop Nor
Koko Nor
KIRGHIZ STEPPES
RUSSIAN TURKESTAN
CHINESE TURKESTAN
SINKIANG
OUTER MONGOLIA
INNER MONGOLIA
MONGOLIA
TIBET
CHINA
INDIA
BAY OF BENGAL
SEA OF JAPAN
YELLOW SEA
EAST CHINA SEA
SOUTH CHINA SEA
PACIFIC OCEAN
70
80
90
100
110
120
130
140
30
40
20

as large as all of our plateau states with California added. Its people are known as the Tibetans and outnumber the Mongols. Sinkiang, or Chinese Turkestan, is the great western province. It is equal to ten states the size of Illinois and has a population of two millions. It is largely a desert, inhabited by many nomadic tribes. We shall learn more of these countries as we continue our travels.

China Proper consists of eighteen provinces, or states, lying between the ocean and these high plateaus which comprise the dependencies. It is a rich land with farms that have produced one or two crops a year for thousands of years; a land of great cities and innumerable villages.

The states are enormous and swarm with people. I doubt whether many of us have ever heard of the state of Szechuan (sā-chō̄ō-ȧn′). Nevertheless, it is four times as large as Illinois and has about half as many people as the whole United States. Lying in western China at the foot of the plateau, it is now inaccessible by railway, although it is planned to build a trunk line there. The province of Kwangtung (kwäng-to͝ong′), on the southern border of the republic, has one third as many people as there are under the American flag, and its capital, Canton (kăn-tŏn′), has nearly a million. There are ten other states each of which has more than twenty million inhabitants, while there is scarcely a province whose people do not number many more than those of most of our larger states.

China Proper is one of the best-watered lands upon earth. The Yangtze River, which is to China what the Mississippi is to us, cuts it in half. The river is navigable for steamers to the rocky gorges of Ichang (ē-chäng′), one thousand miles from its mouth, while beyond the gorges, smaller ships can go many hundreds of miles farther. The Yangtze is longer than the distance from San Francisco to



Interior of the home of a wealthy Chinese family. It is beautifully furnished. Look for articles of furniture which probably came from our country.

Boston, and its source is far higher than any place in the United States proper. The Hwang (hwäng), or Yellow River, if laid upon the United States would reach from the Great Salt Lake to the Atlantic Ocean, and the Si (sē) River at the south equals in length the Mississippi without the Missouri. In addition to these mighty streams there are other great rivers and countless canals, so that most parts of the lowlands can be reached upon boats.

Moreover, the surface of China is such that railroads can be built easily. Within recent years several trunk lines have been constructed, and in time China will have a network of steel tracks such as we have at home. Many of our journeys will be in the comfortable railway cars.

China has mighty resources. Its mountains contain rich beds of minerals, including gold, silver, nickel, and copper; its coal and iron deposits are said to be unequaled by those of our country. Petroleum is found in the north and tin in the south. The soil of China is so rich that in many places it yields three crops a year. Much of the land is irrigated, and the rich earth washings of the mountains, brought down by the rivers, are carried through the canals over the land, making it very productive. Indeed, China has such varied resources that if it were walled off from the rest of the world, its people could satisfy their own needs.

The climate is excellent, varying according to the locality as much as that of the United States. On the high plateaus of the west and north it is as cold and dry as in any part of the Rockies, and in the south as warm and moist as Louisiana or Florida. Wheat, barley, and millet thrive in the north, while in the south tea, rice, and cotton are among the principal crops. On the cold highlands the people wear sheepskins in winter, while on the southeastern coast they can go barefooted at Christmas.

Street in a Chinese city, in the interior of the country. Most of the men still wear pigtails here.

The rainfall is varied. The winds blowing in from the ocean meet the cold air of Tibet and drop their burden of moisture, so that eastern China has plenty of water. As they go westward, the still colder air makes the winds dryer and dryer until, when they reach the high plateaus, they have no more rain to give. Hence we find there vast deserts, such as those of Gobi and Tibet and the arid lands farther west.

You would naturally expect a rich country, walled in from the rest of the world by mountains and seas, to have a race and civilization of its own. This is the case with China. It contains more than three hundred million people who have a character and customs unlike those of other races, and who had created a civilization long before the time of Athens or Rome. This civilization, until very recently, was not affected by ours, but now the Chinese are adopting the best things of Europe and the United States. They are building railroads, introducing machinery, and making other changes similar to those we saw in Japan. Nevertheless, the old China is still so present everywhere that our travels will be like going through a new world.

XVI. ACROSS THE YELLOW SEA TO TIENTSIN—THE GREAT NORTHERN PLAIN

WE shall begin our explorations of China in the northern part of the country by taking passage from Chemulpo for Tientsin (tē-ĕn-tsēn′). The distance across the Yellow Sea is not long, but we stop on the way at Dairen and Port Arthur in Manchuria, two little cities now controlled by Japan. From there we steam on, not far from the coast, and enter China by the little Pei (pĕ′ē) River, awaiting high tide to take us over the bar at its mouth. The land is flat, and the Pei curves in and out like a snake, so that we can see both in front and behind us the white sails of Chinese boats marching, as it seems, over the fields as they move along the river.

We are now in the Great Plain, which extends from the

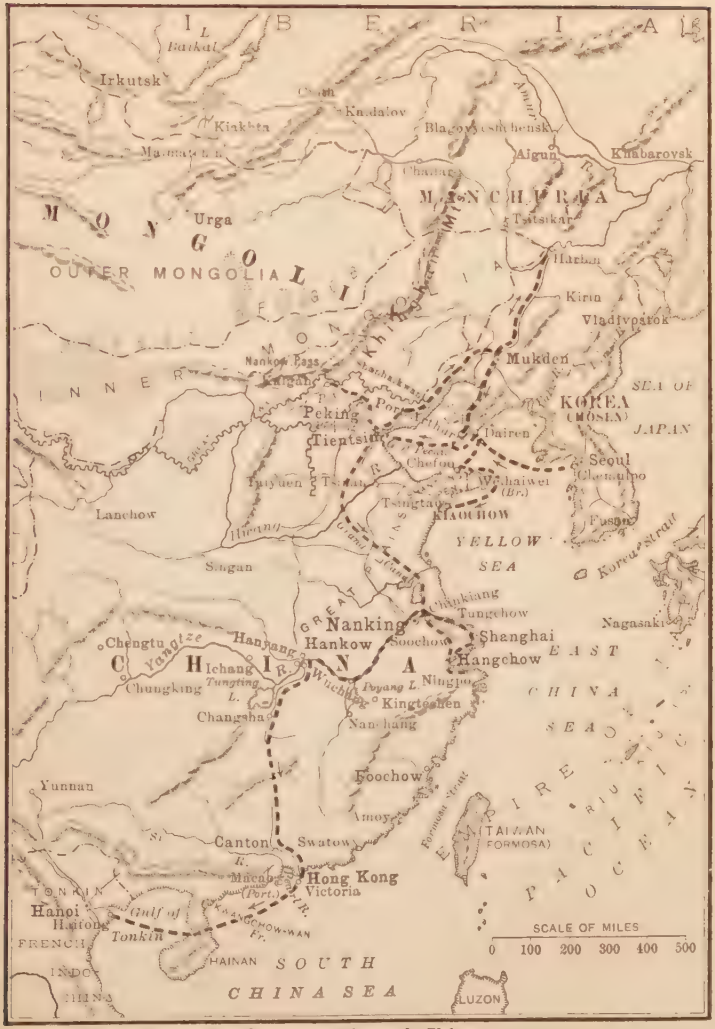
A pagoda, or Chinese temple.

valley of the Yangtze to the mountains north of Peking (pē-kĭng′), now called Peiping (pĕ′ĕ-pĭng). These mountains skirt the ocean and run back into the interior, in places farther than the distance between the Atlantic and the crest of the Allegheny Mountains. This plain supports more people than any other area of like size on the globe. Its soil is exceedingly rich, being largely composed of a yellow earth known as loess (lō′ĕs), which contains lime and decayed vegetable matter. In the mountains farther west there are great porous beds of it, supposed to have been made by the dust blown there from the highlands of Central Asia. Winds carry the loess dust over the Great Plain, and rivers also aid in distributing it, making the land wonderfully fertile. The Chinese thought so much of this soil that yellow was chosen as the Imperial color.

Most of the Great Plain is low, and as flat as a floor. We can see for miles on all sides. The country is made up of farms without fences, and spotted here and there with small clumps of trees surrounding the mud villages, the homes of the farmers.

The banks of the Pei River are dotted with little cities and villages. We often float close to the houses. They are almost all of one story, and some are not more than fifteen feet square. Their walls are sun-dried bricks, and their low, slanting roofs are of reeds plastered with mud. The houses are built close to the streets, which are narrow dirt roads without sidewalks. In some places they extend out over the banks of the river in such a way that the floods often wash out the foundations and drop them, families and all, down into the water.

The streets of these towns are swarming with yellow-skinned people. We see merchants in black satin caps and gay-colored silk gowns, and workmen in shirts and wide,



Our route through China

flapping pantaloons of blue cotton. We see bareheaded women in coats of green, purple, and crimson, below which are bright-colored trousers and little silk shoes. There are almond-eyed children dressed like their parents. The poorer boys are more than half naked. Some of the children are watching the steamer go by, and others are playing about. We tremble at their danger as we see them wrestling together, rolling each other over and over at the very edge of the water.

As we go on we see that the roads running from village to village are lined with people of all classes, conditions, and ages. There are half-naked porters, on the trot with great loads balanced on the ends of poles resting on their shoulders. Now and then we pass ladies on their way to call on the neighbors. Some have feet too small for them to walk comfortably, so they ride on the backs of their men servants. They wear red or pink slippers, and their little feet bob up and down out of silk pantaloons as they hold on to the necks of the bearers. We see Chinese gentlemen riding in sedan chairs slung between poles, and small-footed old women who totter along with canes in their hands. There are hucksters with baskets on their way to the markets, and laborers and peddlers of every description. We observe that hundreds are at work in the fields, and get our first glimpse of the industry of the Chinese, which is unsurpassed in the world.

At Tientsin we find scores of brawny laborers ready to handle the freight at the wharves. They carry the huge boxes and bales out of our ship, all grunting and yelling together as they raise and lower their burdens. As we look closely at them we are surprised at their strength. They are taller than the people of the southern part of the empire, where the Chinese of America come from.

Some are six feet in height, and some can lift five hundred pounds at a load.

Tientsin is the New York of northern China. Situated on the Pei River a short distance inland, it is the chief port of the Great Plain with its many millions of people, and also of Mongolia, to which country goods are carried by railroads and camels. It was Tientsin which constructed the first working railroad of China. It is now on trunk lines connecting it with Peiping, with Mongolia, Manchuria, and Siberia, and also with Hankow (hän-kō′), Nanking (năn-kĭng′), Shanghai (shăng-hä′ĭ), and other cities in the rich Yangtze valley. Tientsin is already as big as Cleveland, and has many factories and schools. Its people are gradually adopting the ways of our civilization, and as we go through, our guides point out the changes, saying that China will soon be as far advanced as Japan.

Anxious, however, to see the civilization of old China, we tell our guides that we wish to travel in Chinese style to Peiping. They reply that the railroad will take us there in less than three hours, but that by the old methods the journey will require several days. We ask how we are to go. They tell us we can have ponies or carts, or, if we would go still more cheaply, there are plenty of wheelbarrows.

And do the Chinese ever travel on wheelbarrows?

Yes, they are common all over the country. Quantities of goods are still carried upon them, and some of the barrows have sails, the pushers being helped on by the wind. We shall find many with men and donkeys harnessed in front, thus aiding the owner, who stands between the handles and pushes behind. The Chinese wheelbarrow is different from ours. The wheel is in the center of the bed, and there is a framework over it with a ledge on each side. The passengers sit on the ledges, or there may be a man

Wheelbarrows are much used in China, carrying both freight and people

on one ledge and freight on the other. We now and then see a wheelbarrow with a hog or sheep tied to one ledge, while on the ledge opposite rides a Chinese woman with flowers in her hair and rouge on her cheeks.

Trying one of the wheelbarrows, we decide it will not do for us to risk an eighty-mile ride upon them, and as the ponies are shaggy and rough, we tell our guides to order carts. In time they come up, each pulled by two shaggy mules harnessed one in front of the other, and driven by a Chinese who sits on the shafts.

What clumsy vehicles they are! The wheels are twice as heavy as those of our drays, and the shafts are as thick. The bed, resting on the shafts without springs, has over it a framework covered with blue canvas, forming the roof of the cart. This is too low for us to have seats beneath it, so we get in and sit on the floor. There is no support for our backs, and when we attempt to lie down, our feet stick out at the front, disturbing the driver. As the mules start off on the trot, we are almost jolted to jelly by the ruts in the road. The dust is so thick we can taste it. Our lips become dry, and when we lick them, they are straightway coated with clay. Before we have ridden ten miles we are so tired out that we are glad now and then to climb out for a walk.

Roads as bad as this one are not uncommon in China, though some modern highways are now being built. The republic has four thousand roads, most of which have been so cut up by these heavy vehicles throughout the ages that they are no better than ditches. They are filled with dust when the weather is dry, and are rivers of mud when it is wet. The people are beginning to want modern roads, however, such as can be used for motor trucks and automobiles. The government is urging the provinces to

improve the highways, and most of the cities and towns are laying new streets. We shall see stone crushers and steam rollers in Peiping, and shall learn that new roadways are being made in many parts of the republic.

As we proceed we frequently pass villages. The farmers do not live on their farms, but in villages of squalid houses with fences of mud about them. The buildings are of sun-dried brick, roofed with reeds tied on in bunches, over which mud is spread. We stay over night in one of these towns, at a native hotel whose surroundings make us think of a barnyard. Our rooms are in stablelike sheds built around a court filled with donkeys and camels. The donkeys bray at all hours of the night and the camels cry like so many babies.

Our bed is a brick ledge, about two feet high, which fills half of the room. It is heated by flues running under it, and we are alternately roasting and freezing. The fuel is straw, which burns out very quickly, leaving the brick bed stone cold before a new fire is lighted. There are no springs and no bedding. We turn over again and again, and at daybreak get up with all our bones aching.

Starting on at six in the morning, we ride and walk until dusk, when we find by the increased number of wheelbarrows, donkeys, and carts, that we are approaching the former great capital of China, and far off in the distance we see the walls of Peiping. Our journey has lasted two days, but we have had a taste of real China, and the trip has been well worth the discomfort it cost.

1. Locate China on the globe. How far is Shanghai from San Francisco? From New York by the Panama Canal? From Singapore? From London by the Suez Canal?

2. Suppose you were ordered to go to China to-morrow, landing at Shanghai, from where would you start? At thirty miles per

A Chinese cart. It has no springs and is very uncomfortable on poor roads.

hour by rail and fifteen miles per hour by ship, how long would it take you? If you had to travel all over the country, what different kinds of clothing would you require?

3. What is China Proper? Name the chief colonies or dependencies of China, locating each.

4. How large is China with its dependencies? Compare its population with that of the United States; with that of Europe; with that of your own state.

5. Have you ever seen a Chinese? Describe him. To what race do the Chinese belong?

6. Where is the Great Plain? Where does the soil get much of its fertilizing matter? Locate Tientsin and compare it in size with some American city. Why has it become a great city?

XVII. PEKING (PEIPING)

BEFORE we enter Peking, or Peiping, the new name which has been given to this city by the republican government of China, let us stop a moment and think where we are. We are at the gates of one of the oldest cities of the world. There was a settlement here when the Great Pyramid was built, and when the Israelites worked under Pharaoh in the Nile valley. At the time of the Crusades, the Tatars had their capital in Peking, and seventy-three years before Columbus tried to find his way out to China and discovered America, the walls which now surround the city were built. There are about twenty-five miles of them, solid as stone throughout. They are as tall as a four-story house, and so wide at the top that five automobiles could race side by side upon them without crowding.

Think of surrounding New York or London by a wall sixty feet thick at the bottom and so high that you would have to climb to the top of a tall tree to look over it. Let the wall be faced inside and out with gray bricks and let

the space between be filled with earth so packed that the whole is like one mass of concrete. Then build great towers upon the structure above the gates which pierce it, and you have some idea of the walls of Peiping.

Such walls once ran around every one of the old Chinese cities, and it is estimated that there are still more than a thousand walled towns in China. The walls were put up as a means of defense, with piles of stones on many of them, ready to be thrown down at the enemy in case of a siege. The towers were intended for watchmen, and the gates under them were the only way in. They were open during the day and closed at night by doors plated with iron. Long before we come up to the walls, we can see the towers over the sixteen leading gates into Peiping.

Entering one of the gates, we climb up into the tower for a view of Peiping. What a curious city! It is like an immense orchard, in which stand thousands of one-story stablelike structures of gray brick with roofs of black tiles, the stores and homes of the people, while rising here and there above the trees are the old government buildings, looking somewhat like American barns. Through the whole are cut wide streets, upon which moves a busy throng of vehicles, animals, and men.

As we look again we see that there are other walls running this way and that through the inclosure, and our guides tell us that these walls surround three different cities, the whole making Peiping. There is the Tatar city at the north; at the south is the Chinese city, and beyond it are the temples of Agriculture and Heaven, where the Emperor, representing the nation, used to ride out in an elephant cart to pray to his ancestors, and where every spring, with a gold-handled plow, he started the first furrow, after which the farmers were supposed to

put in their crops. Most of the business is done in the Chinese city. Its side streets are narrow and walled with all kinds of stores, as we shall see when we go through them.

The Tatar city gets its name from the Tatars, who came, long ago, from beyond the Great Wall, conquered the Chinese, and made their homes here. In the middle of the Tatar settlement is the Imperial City, where the Emperor formerly lived with his thousands of servants. It has many huge buildings, brilliantly painted and roofed with porcelain tiles of bright yellow. The seat of government was in the Imperial City at Peking until 1929, when the capital was established at Nanking.

We go down from the tower and make our way through the crowd of pushing men and beasts which moves through this gate from sunrise to sunset. What a wonderful collection it is! There are caravans of brown, woolly camels laden with tea, on their way to Mongolia, and ridden by bronze-faced, fierce-looking Tatars. There are automobiles containing the silk-dressed upper classes, poorer men upon bicycles, and half-naked coolies on foot. There are carts without number, hauled by ponies or mules, and little gray donkeys straddled by yellow-skinned merchants and urged on by the blows of yellow donkey boys.

There are men and boys dressed like ourselves—Chinese who have adopted Western costumes—and many whose clothes are half like ours. There are dandies dressed in satins and silks, and soberly gowned scholars wearing spectacles with glasses as big as our silver dollars. There are women in foreign costumes, and some with the trousers and tiny feet of the Chinese. There are Manchu ladies with unbound feet in white shoes supported on blocks that make us think of stilts, and girls in school dress. There are shaven-headed priests from Tibet in gowns of bright

The Temple of Heaven, near Peiping. Here the Emperor of China used to come every year on December 21, to offer sacrifice.

Chinese children. They wear trousers and jackets of silk.

yellow, and travelers from all over China in costumes of all shades and tints. There are barefooted beggars in rags, and gorgeously dressed officials on ponies, all pushing and scrambling and shouting as they force their way through the throng.

Mounted on the donkeys we have hired to ride through the streets, we make our way in and out among these yellow-skinned people. We move carefully, and have little trouble, for the Chinese have become accustomed to foreigners and the policemen at all the street crossings keep good order.

The wide roads have been cut up into sections, with sidewalks along some of the buildings and the walls of the compounds, or yards, in which the houses stand. Next to the sidewalk is a dirt road for people and animals, and in the center is a macadam road for motor trucks, motor cycles, automobiles, jinrikishas, and carts. On the dirt road donkeys and ponies are moving along, with now and then a huge camel loaded with goods, on its way to Mongolia, to which country there is still a great caravan trade. We see that the streets are well lighted, and that electric lamps have taken the place of the paper lanterns of the past. The public buildings and many of the houses are lighted by electricity. Peiping now has waterworks, sewers, and telephones.

We ride from one public building to another. Most of them being of modern architecture, they look strange amid their old Chinese surroundings. We stop for a while in the legation section, where, inside a wall, the foreign ambassadors and ministers have their quarters. We call on the ambassador from the United States, who has a large house in Peiping belonging to our government. He gives us much information as to where we should go and

Temple of Confucius.

how we should travel. By his advice we visit the temple of Confucius, the most famous of Chinese philosophers, who lived about twenty-four hundred years ago, and whose moral teachings are held in great reverence by the Chinese. We visit also the great Lama temple at the northwest corner of the city, where the Buddhists from Mongolia and Tibet come to worship.

XVIII. CHINESE STORES AND MARKETS

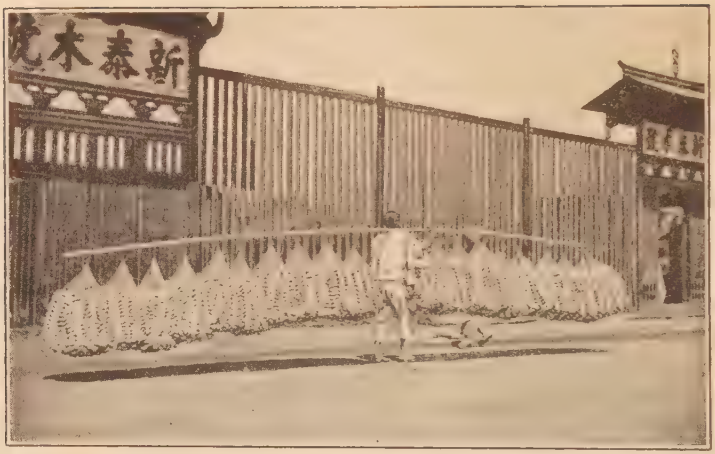
WE are interested in the stores of Peiping and are anxious to go on a shopping expedition. The chief business section is in the Chinese city, where everything under the (Chinese) sun is sold in the stores and bazaars.

From toy peddlers we buy presents for our friends at home. In the toy shops are flutes and drums, tea sets and dinner sets for dolls, and toy furniture of every description. There are camels and tigers made of canvas and stuffed with sawdust, and fuzzy dogs which bark when you squeeze them. There are toy birds with real feathers, and toy chickens and ducks.

But suppose we enter a store. It has counters, behind which the clerks stand, and upon which they display their goods. The clerks are wearing long gowns of silk, and black skullcaps with red buttons on top. We find them good salesmen, although they always ask several times what they think we will pay.

Going on, we pass by several banking establishments, and at the street corners see money changers sitting at tables with piles of copper and brass coins before them. Such coins form the chief money of China, and it takes several of the kind known as cash to equal the value of one of our cents. Large transactions are carried on in silver measured by weight. Such silver is usually cast in the shape of a Chinese shoe and marked with a number which shows the taels, or Chinese ounces, it weighs. A tael (tāl) is worth a little more than our silver dollar. In addition, silver dollars are now being coined, mints having been established in many of the cities. The banks issue notes which circulate everywhere.

Stores of the same kind are usually close together. We pass into a street of bookstores; in some streets farther on they are selling nothing but hats, and others are lined with shoe stores and fur stores. There are sections of the city where only porcelain is sold, and in others are long lines of shops devoted to satins and silks. There are lock peddlers by hundreds, and wood stores and coal stores.



This peddler is selling joss papers, or funeral money.

Wood is sold by weight, and coal dust is mixed with mud and made up into balls as big as our fists, which are sold for a few cents apiece.

Here we are at a drug store! That writing in front of it advertises "ground tiger bones to strengthen faint hearts," and extracts of rat meat, which are warranted to make the hair grow. Farther on is a coffin street, each store of which is full of great wooden caskets. The Chinese are particular as to how they are buried, and sometimes buy coffins a long time before death. Indeed, it is not uncommon for a son to give his father or mother a beautiful coffin at New Year's. The parent will keep such a present in his parlor and show it with pride to his neighbors. In the coffin street are shops which sell gold and silver paper cut in certain odd shapes. This is funeral money, to be burned at the graves of the dead, that they may not go penniless into the land of the hereafter.

There are many bird stores in Peiping. The Chinese are fond of pets, and we meet grown men going about carrying little birds upon sticks. One leg of the bird is tied to the stick by a string, which permits it to fly a short distance, and now and then it darts up and flaps its wings before it returns to its perch. We find pigeons sold in the markets, and often hear them flying about through the air with a noise like a boy blowing a tin whistle. The noise comes from a wooden whistle tied to the tail of the bird to scare off the hawks. As the bird flies along, the air is forced through the whistle and blows it. Such whistles cost two cents apiece. Many of the pigeons are used as letter carriers, the letters being tied under their wings.

The markets are especially interesting. Though we have heard it said that the chief foods of the Chinese are rice, cats, dogs, and rats, we observe that they have the best of meats and the choicest of fruits. The mutton comes from the fat-tailed sheep of northern China, the tails of which often weigh several pounds each. We can buy camel's flesh, and pork is sold everywhere. The Chinese like pork, and produce one especially fine variety on an island off the southern coast, where the pigs are fattened on sweet potatoes and chestnuts. They have fowls of all kinds and the best breeds of geese, chickens, and ducks.

Besides the animals reared for the markets, China has all sorts of game. We see deer, rabbits, and squirrels, and snipe, quail, duck, and other wild birds. More than a thousand different kinds of fish are sold in the country — mackerel, herring, sturgeon, and sole, as well as gold and silver fish, and a fish that looks much like a parrot. There are plenty of oysters, clams, prawns, shrimps, and crabs. The fish are all brought in alive, and kept in tubs of running water until they are sold.

A modern Chinese store. It has plate-glass windows.

Cats, dogs, and rats are sometimes eaten by the poorer Chinese. I once bought a dried rat in Canton, and I have visited restaurants which served stews of cat meat and dog meat. In one of them I saw a dog being cooked. The flesh looked like pork, and the fur had been scalded and scraped from the skin, except for a jet-black tuft at the end of the tail. My guide said it was left on to show the dog's color, as the meat of a black dog is considered the best.

XIX. HOW THE CHINESE ARE GOVERNED

IN 1912 China became a republic. For many centuries before that it had been a monarchy, ruled by an emperor with absolute power. From time to time the country was overrun by the Mongols and Tatars, but the government remained much the same. The Emperor had his cabinet and many officials. The country was divided into provinces or states, and he appointed the viceroys of the provinces, who had under them officials in every district, city, and village, who were to a large extent chosen by the people.

After China was beaten by Japan in 1895, the Chinese saw that they must have a different government if their country was to take the place it should hold in the world. Many young men who had studied in our country and Europe brought back accounts of how people were ruled in the Western World. The belief spread that the time was ripe for a new government with different methods of education, commerce, and industry, and of taxation and defense. Then a great rebellion occurred which resulted in the establishment of a republican form of government, with a president and congress elected by the people.

From that time on the nation has been rapidly changing. There has been trouble in many of the provinces, and at times there have been two republics, one in the north and one in the south. There has been, however, a constant advance, and the Chinese are steadily growing more like the Western World in their government and trade regulations.

The President of the republic has a Cabinet, with a Premier, and ministers of the Interior, Foreign Affairs, War, Navy, Finance, Justice, Agriculture and Commerce, Communications, and Education. Some of the chief officials have been educated abroad, a number of them in the United States. Our nation has always been friendly to China, and their government is now sending many Chinese boys to our American colleges. In all the chief public buildings we find friends who make us quite at home.

In addition to the officials here at Peking, there are thousands scattered all over the empire. Each of the eighteen provinces of China Proper has its own governor, with hundreds of officials to help him. Each province is divided into districts, and each district into subdistricts and villages. Each village has its own officers, and every family in it is responsible for its good conduct. If a boy commits a crime, his father, his elder brothers, and even his teachers are punished, as well as himself; for the Chinese say that if they had taught him properly, he would not have broken the laws.

By the new constitution every province of China Proper now has its legislature, much like the legislatures of our states. The cities elect their own mayors, and many of them have night schools where grown men are now studying how a people should govern itself. The republic has adopted a new flag to take the place of the old dragon on a yellow field. This flag is made up of five stripes—

Prisoners wearing cangues. They are standing in front of a Chinese prison.

crimson, yellow, blue, white, and black — to denote the five races governed by the republic. These are the Mongols, the Chinese, the Manchus, the Turki, or Mohammedan natives of Chinese Turkestan, and the Tibetans.

In the past the courts of China were corrupt, the jails and prisons were vile places, and the punishments were the most terrible that could be imagined. These matters are being reformed. New courts have been created, new prisons are being built, and in time justice will be administered as fairly as in our own country.

At present some of the milder of the old punishments are still in use; and as we go through the streets we may see petty thieves and vagrants wearing cangues. The cangue (kăng) is a square framework of boards like a table

top, three or four feet across. This has a hole in the center and is so made that it can be opened and fitted tightly around the neck, resting on the shoulders. It usually weighs about twenty-five pounds, and is sometimes loaded with iron to make it heavier.

Now, if one will imagine his neck fastened through a hole in a kitchen-table top, which he is condemned to carry about with him, he can see how he would be punished in China if he were caught stealing. He would find it more uncomfortable than he could imagine. The boards would extend so far out that he could not reach his mouth with his hands and would have to ask others to feed him. He could not lie down, and if a fly or bee happened to light on his nose, he could dislodge it only by shaking his head. Upon the top of the cangue, on each side of the hole, are pasted strips of paper describing the crime of the wearer, so that everyone can read them as the man goes through the streets.

During our stay in Peiping we meet many officials and scholars, and observe that the Chinese have in many respects a high degree of civilization. They are philosophers, and are always talking about morality, virtue, and justice. In the discussions which they like to have with us, we often find that they have the best of the argument. They consider scholarship better than riches. Everyone is anxious that his children shall have an education; and the boy who graduates well or passes a high examination is pretty sure to be employed by the government. It is therefore the aim of every schoolboy to learn his lessons so well that he may become an official.

We find all sorts of schools in Peiping and throughout the country. Within recent years the old system of education, which was made up almost altogether of writing

四出。登高望之。儼如棊枰。官署之外。果以達道。茂樹參差。珍禽上下。兩街交會之處。園林相屬。士女冶遊。長春之花。名賢之象。錯落其間。語其靜逸。足稱仙都。

客華記見

夫公園之境地。宜若在山崖水隈。而不當臨於大道之中。若是則吾不解於華盛頓之公園也。或告之曰。華盛頓之公園。蓋寓防禦之事於遊觀之中。作京之日。法人某旅居美國。彼固目覩法國大革命之際。政府無防禦之備。亂黨一呼。全城鼎沸。君臣相顧。不知所歸。隨和之璧。等於彈雀。未央之宮。却於紅羊。巴黎之繁華。忽焉已沒。華盛頓初創之日。宜安置防護之機。以無蹈法

A page from Carpenter's "North America," printed in Chinese.

essays and committing to memory the Chinese classics, has been abolished, and the studies are now much the same as our own. Some of our schoolbooks have been translated into Chinese and are used in the public schools.

Chinese boys and girls learn arithmetic, geography, and history, and as they grow older they study the sciences. There are many manual-training schools, technical schools, and high schools. China has schools of law, medicine, agriculture, engineering, and commerce. There are several large universities, including one in Peiping. There are tens of thousands of primary schools and millions of pupils.

In the new schools the child starts in with the kindergarten at the age of three or four years. It takes him about nine years to finish the lower grades and five more to go through the intermediate schools. He is now ready for high school or college, after which he may enter a university, where he remains from three to eight years, according to the course he has chosen.

In the public schools of the cities the children have desks, and study and recite much as we do. They wear uniforms and have a military drill similar to that of Japan. They have their games during recess and can play ball and wrestle as well as we can. They learn easily, and most of them are anxious to study. When a boy starts to school for the first time he carries a red visiting card bearing his name, and also a present for the teacher. He bows to the teacher when he enters or leaves the room, and as a rule is very polite.

There are still old-fashioned schools in the villages, where the pupils sit on the floor or on benches before little tables. In such schools they study out loud, shouting at the tops of their voices the words of the Chinese classics they are trying to learn. If a boy stops shouting, the

Chinese schoolboys playing baseball.

teacher, concluding he has stopped studying, gives him a caning. In the older schools they do most of their sums on a counting box, like the Japanese soroban. This is a framework inclosing rows of wooden buttons strung on wires, and every boy of ten or more knows how to use it.

During our visits to the schools, we see that the Chinese have a great respect for scholarship and learning. They have many books written centuries ago, and the wise sayings of the great men of the past are taught to the children. In some of the schoolrooms sentences from the classics, beautifully written in Chinese, are hung up on the walls. Among the proverbs which the teachers translate into English for us are the following:

Learn easy, forget easy; learn hard, forget hard.
Let your purse and not your eyes tell you what you buy.
Mother and father first; and wealth after.
Kind words outlive much frost.
No matter where the stream is, the sea is calling it.
Right is the only might that lasts.
Don't try to put out the burning house with tears. Run for water.
You may think you are on the right way, but you lose nothing by asking.

Until recently the Chinese did not think that women needed much education, and but few girls went to school. Girls' schools are now being established, where the girls are taught the same as the boys. They learn also music and drawing, as well as nursing, needlework, and housekeeping. In these schools the girls are required to unbind their feet. They are not allowed to paint, to powder, or to wear jewelry or expensive gowns. They must have on the school uniforms and do up their hair in a braid or plain coil, the only ornaments being the rosettes which indicate the schools to which they belong. Several colleges for girls have been established also.

In most of the new schools the boys are now taught to be soldiers. They have their own guns and go through regular military exercises under officers trained in Japan, America, or Europe. Moreover, there are also government military schools, so that China will soon have a great modern army. It has so many people that it could put more soldiers into the field than almost any other nation on earth, and some think that the Chinese might conquer the world if they would. In the past they often have been imposed upon by smaller nations. They are not cowards, however, and it may be different when they have an army of well-trained soldiers, who have learned our ways of

fighting and have modern guns and other war equipment of their own.

1. Describe your journey from Korea to Peiping, and trace it on the map. Through what large city do you pass on the way? Take a trip through Peiping and tell what you see in the streets. Visit the business section and describe the markets and stores.

2. What was the government of China in the past? What is it to-day? Compare it with that of the United States. Mention some of the changes that are taking place in the country and among the people.

3. Spend a day in the schools and describe them. Which of the Chinese proverbs quoted in this chapter do you think best?

XX. THE GREAT WALL OF CHINA

WE have left Peiping and come northward by railway to see the Great Wall of China. The trip has taken several hours. We crossed a wide fertile valley, and passed through many towns before we reached the Nankow pass in the mountains, through which the railroad goes on its way to Mongolia. We could see the wall long before we came to it, winding its way over the mountains, climbing the peaks, and crawling up the hills.

The Great Wall, though of no great value to-day, was vastly important in the days when the Chinese built it to defend their country from the invasions of the Tatar hordes from the north. It began at the sea, and ran over the mountains clear across the northern boundary of China Proper, just south of the vast provinces of Manchuria and Mongolia, until it reached the Desert of Gobi, north of Tibet. In a straight line it was more than twelve hundred miles long, and with its windings it measured,

A part of the Great Wall of China. From its towers, the frontier guards could watch their enemies.

all told, a distance of about fifteen hundred miles. It was about twenty-five feet wide and thirty feet high, and was composed of a mass of stone and earth, mixed together and faced with walls of slate-colored brick, the interior being so packed down and filled in that throughout much of its eastern portion it is still as solid as stone.

Several years before the journey we are now making, I visited the wall at Shanhaikwan (shăn-hī-kwăn′), upon the edge of the Yellow Sea. It had been torn down there to allow the railway to Manchuria to pass through it, and I was able to see how it was made. The outer facing was about three feet thick. It was made of bricks fifteen inches long, seven inches wide, and a little more than three inches thick. I have one of those bricks at my home in America. It weighs twenty-one pounds and five ounces. There were two walls of such bricks, with an earth wall between them, the whole making one solid structure. The top of the wall was paved with brick, and upon its northern side, throughout its whole length, was a battlement behind which the Chinese archers lay and shot at the Tatars.

Along a great part of it huge two-story and three-story towers reared themselves above the wall. These towers were made of bricks, similar to those just described, and extended about forty feet above the top of the structure, having many portholes, through which a watchman could see for miles over the country. In the parts still standing, the wall is about ten feet narrower at the top than at the base; but the top is so wide that the largest motor car could easily be driven along its paved highway.

The Great Wall was just about as tall as a three-story house, and as wide as the average parlor. Now, if you will imagine a solid line of three-story brick houses from fifteen to twenty feet wide, built across the United States

from New York to Omaha, you may have some idea of the size of the great Chinese Wall. It would be far easier, however, for us to build such a line of houses than it was for the Chinese to construct their mighty fortification. Our building line would cross New Jersey and Pennsylvania and cut the rolling plains of Ohio, Indiana, Illinois, and Iowa, where water is plentiful, where there is much clay for brick, where the railroads could be used for carrying material to the place where it was needed, and where modern machines would do a great part of the heaviest work.

This mighty structure was built right over the mountains. It climbed the steepest of crags, in one place crossing a peak over five thousand feet high. In some parts there is no clay within thirty miles, and many of the hills are so steep that the Chinese had to tie the bricks to the backs of sheep and goats in order to get them up to the builders. The bricks were molded by hand, and every foot of the wall was made without the aid of machinery. The Chinese historians say that it took an army of three hundred thousand men to protect the builders, while millions were employed in the construction. They state also that the wall was begun and completed within the short space of ten years.

As we stand upon the wall we are impressed with the civilization these people must have had in those long ago days. The Great Wall was begun when our own ancestors were roaming through Europe, living in huts and sleeping on straw; seventeen hundred years before America was discovered; when Rome was still a republic and none of the great nations of Europe had yet come into existence.

After exploring the wall, we take donkeys and make our way from China into Mongolia, through the chief

pass through the Great Wall, at Nankow (nän-kō′). It is on the main road from Mongolia to China, and notwithstanding the railway, much of the traffic between the two countries still goes over it as in the past. Our animals are not much bigger than Newfoundland dogs, and our saddles are blankets, to which the iron rings used as stirrups are tied with ropes. We have been given bridles because we are foreigners. These donkeys do not know the use of bits, and we are told to direct them by blows on the neck with a club. We also have donkey boys who run behind us with sticks in their hands, and keep the donkeys moving at a good pace.

The roads through the pass are so narrow in places that we are crowded out into the fields by the caravans of camels, which, in single file, with soft velvety step, move sullenly onward. These camels carry a great part of the traffic. Each has some boxes or bales strapped to each side of his back, and the boxes bob up and down as, grumbling and whining, the camels tramp slowly on. Some of them carry coal in bags, some are loaded with wool, and others have packages of brick tea to be sold in Mongolia. They are tied in companies of six, by ropes fastened to sticks thrust through holes made in their noses. Fastened about the neck of the last camel is a long iron bell as big around as a stovepipe, which ding-dongs as he moves, and announces to the Mongolian driver that that section of his caravan is on the go. Some of the caravans are almost a mile long. We can see them far away on the horizon, forming a moving fence against the blue sky of northern China. For more than a thousand years such camels have been coming and going upon this rude highway. They still go from the pass to Peiping and Tientsin, competing with the railways in carrying the freight.

Mongolians leading a camel. The men wear garments of sheepskin with the wool inside.

XXI. AMONG THE MONGOLS

THIS morning we are at Kalgan (kăl-gän′), which forms the end of the great caravan route that runs to Urga (o͝or′gä), the capital of Mongolia, and thence on to Irkutsk (ĭr-ko͝otsk′), a city of Siberia, on the Trans-Siberian Railroad. It takes a month to go by cart or camel over the great plain to Urga, and almost two months to Irkutsk. The road to Urga is very rough. A large part of it is filled with stones and dust in the dry months, and with a torrent when it rains. It climbs gradually to a plateau that is almost a desert. Now there is nothing but sand, and now the plain is studded with flowers of red, yellow, and blue, while a fuzzy grass grows along the sides of the road.

The caravan route is filled with traffic. There are heavy-wheeled ox carts, and trains of horse carts piled high with freight. There are the passenger carts of the Chinese and Russian traders, each cart having a roof of blue cotton to keep out the rain and the sun. The traders stop at the towns and villages and trade cloth, pins, needles, and notions, for furs and skins. There are also long trains of camels and peddlers with wheelbarrows. Of late, automobiles have appeared, and there are now motor cars in this far-off city of Urga. The trip from Kalgan by automobile takes only four days. The cars can run only in summer.

We have no time to make the trip over the desert to Urga, but we have seen Mongols all along the route from Peking to the Nankow pass and there are many of them at Kalgan. From them we are able to learn something about the country and people. Mongolia, the land of the Mongols, is a dependency of China, stretching through Central Asia eastward from Turkestan to Manchuria, and northward from

China to Siberia. Its area is one third as great as the whole United States. It is composed for the most part of the great plateau known as the Desert of Gobi, which is half a mile or more above the sea, five hundred miles wide, and about one thousand miles long. The only plateau that compares with it in extent is formed by the highlands of Peru and Bolivia, which are about five times as far above the level of the sea.

The people of Mongolia are tall and stout, with rosy, copper-colored faces, and high cheek bones like our Indians. They dress in sheepskins with the wool turned inward, and have gowns and caps lined with fur. The men, women, and children wear boots that reach to their knees, and all look greasy and dirty.

The Mongols are a nomadic race, ranging the desert with their camels, horses, and sheep, and dwelling in circular tents made of layers of felt stretched over a framework, with a hole in the roof to let out the smoke. There are no windows, and the entrance consists of one low door. For furniture they have only small tables and the boxes containing their clothing, together with some brass cooking utensils. They live largely upon mush and cakes made of the meal of millet, buckwheat, or oats, mixed with milk. They eat meat only on festal occasions, killing a sheep when they have guests. They do not use chopsticks, but eat with their fingers and spoons. They cook over the coals. A favorite dish is a soup made of milk and brick tea, enriched with butter. They usually have rugs on the dirt floor, and there is a raised platform at the back. They have dogs that remind us of the dogs of Alaska, they look so much like wolves. The Mongols are excellent horsemen, and often ride at a gallop. Most of them are Buddhists, and there are many temples scattered here and there over the country.

Buddhist military priest, passing the Bell Tower, at Mukden.

XXII. MANCHURIA

WE have returned to Peiping, and come eastward by rail to Shanhaikwan, where the Great Wall ends on the Yellow Sea, and from there traveled on to the city of Mukden (mo͞ok-dĕn′). We are now in the capital of Manchuria, the smallest but most thickly populated of the dependencies of China. The country is larger than Texas by twice the size of New York, and has almost one fifth

as many people as the United States. Mukden was once the capital of the Tatars, and a part of its population are Manchus, who remind us of the Mongols we saw beyond the Great Wall; others are Chinese. The latter are the more enterprising, and they own most of the land and do all the business.

Mukden is much like the Tatar city of Peiping. It is inclosed by high brick walls so wide at the top that two automobiles could be driven abreast upon them. There are eight gates to the city, with great towers over them, and inside are palaces that once belonged to the Emperor of China.

The city has about one hundred and sixty thousand inhabitants, who live in brick houses along streets that wind in every direction. They were made winding by the old Manchus, who thought that the evil spirits might get lost in the crooked streets, and not be able to find their way to the dwellings.

The town has also some fine modern structures. Its officials are enterprising, and they have new schools and many modern improvements. Outside Mukden is an experimental farm, with an agricultural college near by. There are also schools of manual training, some of which teach iron working, cotton spinning, and glass blowing. There are some automobiles in the city, and we ride from the railroad station to our hotel in a car.

We like the looks of the Manchu women. They are taller and stronger than the other Chinese women we have seen. Their feet are not bound, and they walk the streets with firm tread. Among them are many rich ladies, dressed in fur-lined silk coats, falling to the ankles, below which show silk pantaloons. They paint their faces white, and tint their cheeks and eyelids with red.

A Manchurian lady and her son. Most Manchu women wear this headdress.

They have gorgeous headdresses, wrapping the hair around thin plates of gold or silver two or three inches wide and ten inches long, in such a way that it stands out in wings on each side of the head. Their shoes are like stilts, having high supports under the insteps. The children dress like their parents.

We spend much time walking the streets. Mukden has miles of one-story booths, back of which are warehouses filled with fine goods. There are long streets devoted to the making of ornaments of silver and gold, and some to the manufacture of copper and brass. There are streets of shoe stores, with great boots hanging out at the front as signs, and quarters where only caps are sold.

Mukden has many fur stores, supplied by Siberia and the wild, cold mountain regions near by. It has more than forty tanneries, and leather and fur are to be seen everywhere. The city is one of the chief fur markets of Asia, for the forests of Manchuria are full of wild animals, and the raw skins and furs are brought here for sale. Among the furs are skins of tigers and leopards, sables, beavers, and wolves. We see many dogskins, and are told that there are dog farms where the animals are bred for their skins. They are killed just before spring, while the hair is still long. The best skins make beautiful rugs, and we learn that many of them are shipped to America.

From Mukden we take many trips into the country, going north and south over the railway. The land is exceedingly rich, and we ride for miles through great fields of corn and beans, and sorghum with stalks twice as tall as a man. Sorghum seed is one of the chief foods of the people. The grain grows everywhere. The stalks are cut, and much of the seed is threshed out by horses or mules dragging round stone rollers over the straw. Indian

Manchurian train guard. Our train carries soldiers to protect us from the Huang Houtzes.

corn and wheat grow equally well, and there is a great deal of rice in some parts of the province. All crops are planted in rows about eighteen inches apart. The land is thrown up in furrows each year. The rows are not straight, but wind about like ribbons moved by the wind. If we ask a farmer why he plants his crops in this way, he will tell us that he can get more grain from a field of crooked rows than from straight ones.

From Mukden we go southward by rail to the ports of Dalny, or Dairen (dī′rĕn), and Port Arthur, on the Yellow Sea, and over the same road northward to the thriving city of Harbin (här-bēn′), at the junction of the Chinese Eastern and the Trans-Siberian railways. This route is the overland passage to Europe. We could take the cars on the Trans-Siberian and within two weeks be in Moscow in Russia, and a little later in Paris or London. This trip would show us Siberia, but we wish to go southward through China and India and visit the remainder of Asia first. So we return to Mukden, and take the train again for Shanhaikwan and Tientsin.

During the latter journey we are surprised to find soldiers at some of the Manchurian stations and guards on the cars. This is because there has been a report that the terrible Huang Houtzes (hwäng hō̄ot′zēs) have been holding up the trains on the railroads. These men belong to tribes of brigands of northern Manchuria. They live in the forests, and from there make raids out over the country to rob and blackmail the people, whom they force to pay tribute. They frequently take travelers captive and hold them for ransom.

1. Make a visit to the Great Chinese Wall and tell how it looks. Why was it built? Would it pay us to have a great wall between us and Canada? Between us and Mexico? If not, why?

The Auditorium. at Dairen, Manchuria.

2. Locate Mongolia. How is it related to China? What is the capital? What can you tell about the means of transportation in Mongolia? In China? Describe a Chinese wheelbarrow; a Chinese cart. Why are wheelbarrows used?

3. Where is Manchuria? Compare it in size with your own state; in population with the United States. How does it get its name?

4. What is the capital of Manchuria? Describe it. Why has it a great fur business? Make a trip from Mukden to London, naming the great cities you pass through on the way.

XXIII. CHINA'S INTERIOR WATERWAYS — BOATS AND BOAT PEOPLE

THE city of Tientsin, where we are now, is one of the chief railway centers of China. It has trunk lines connecting it with Shanghai, near the mouth of the Yangtze, and with Hankow, a port as far inland as Detroit. Tientsin has access to the Pacific by the Pei River, and it is on the Grand Canal, which runs from the Pei about eight hundred miles southward to Soochow (sōō-chō′) and Hangchow (häng-chō′), crossing the Hwang, or Yellow River, and connecting it with the Yangtze. We might go southward through these populous regions by train, but we shall take boats, as we wish to explore the Grand Canal. This is one of the famous old trade routes of China, and parts of it are said to have been constructed more than two thousand years ago.

Built as a trade route from the Yangtze valley to Peiping, the Grand Canal cuts its way through the great plain, passing through towns and cities every few miles. Its course lies through a rich farming region. In some places the canal follows the streams, winding in and out for miles

without locks; in others, where the land is low, its bed is a raised earthwork walled on both sides with stones. Some of the embankments are twenty feet high, and often inclose a stream two hundred feet wide. There are many locks, and the boats are dragged by men from one level to another. During past generations the canal has been going to ruin, but since the Chinese government has made contracts with engineers from the United States to repair it, it will probably take its place as one of the great waterways of the future. Steamers and barges already ply through parts of its course, and there are so many people living along the banks that the traffic may be the greatest of its kind in the world.

We find our journey delightful. We pass many walled cities and towns and thousands of farm villages, the latter marked by clumps of trees scattered over the landscape. Our boats move along slowly, and we frequently get off to walk on the banks. We meet Chinese craft here and there, and now and then harness ourselves side by side with the yellow-skinned men and boys and help them drag their little vessels along. We cross the wide Yellow River, and reaching the Yangtze, take a steamer for a trip up that mighty stream.

The Yangtze River is more than three thousand miles long, and ocean vessels can sail over its course to Ichang, one thousand miles from the sea. It is a great water highway to the interior of the republic, having so many tributaries that it might be called the Mississippi of China.

In the lower part of its course, as we sit on the deck of our steamer we can see the masts and sails of boats apparently moving across the green fields. The country is cut up with dikes and canals quite as much as Holland. There are vast territories where nearly every man's house can be visited

by boat, and where the people seem to live on the water. China has so many canals that its navigable streams form the principal highways.

The largest cities stand upon the banks of the rivers, and there are industrial centers at every few miles. Each city has its peculiarities. Some, such as Hangchow and Soochow on the Grand Canal, are noted for their manufacture of silk, while others, like Hankow, are great iron centers. Hankow, six hundred miles from the sea on the Yangtze, is as large as Buffalo and Detroit combined, and the biggest ocean steamers come to its wharves. Soochow is as large as Detroit, and Hangchow is nearly four times as large as St. Paul. Chungking (chŏŏng-kĭng′) is another great port far up the Yangtze, and farther still, almost on the edge of Tibet, is Chengtu (chĭng-tōō′), the capital of Szechuan, a populous center with about a million inhabitants. Nanking, which is on the Yangtze, several hours by rail from Shanghai, has streets as wide as those of Peking; while in Canton, near the Si River, a great business city with almost a million people, the streets are so narrow that we have to crowd against the walls to let the wheelbarrows go by.

One of the finest cities of the country is Shanghai, situated not far from the coast on the Whampoa (hwäm-pō′ä), a branch of the Yangtze. It is the chief port for landing American goods. Its population is more than one million. It has large foreign buildings, great factories devoted to the making of cotton and silk, and other industries of almost every description. There are great oil works, and tobacco and cigarette factories belonging to Americans. Many of our people come here to live and manage the trade between the two countries.

We can get some idea of the commerce of a country by a look at its shipping. China is said to have more boats of

Business street in Shanghai. The signs in Chinese tell the names of the stores.

These Chinese fishermen are using birds called cormorants to catch fish for them, as hunters in the Middle Ages used hawks to capture other birds.

one kind and another than all the rest of the world put together. There are lines of Chinese and Japanese steamships on its principal rivers, and native craft on most of the streams. There are also motor boats and gasoline launches.

At the walled cities, which we pass on our trip up the Yangtze, are forests of masts belonging to boats of all sizes, descriptions, and shapes. We see Chinese junks with wide-spreading sails ribbed with bamboo, and fishing craft whose sails are shaped like the wings of a bat, catching the

slightest wind as they move along. We go by barges loaded with merchandise, and canoes sculled by Chinese standing at the stern. There are craft shaped just like slippers, which are used as dispatch boats and are very fast. We see queerly shaped boats with paddle wheels on their sides turned by men, half a dozen coolies doing the work of a small gasoline engine. We are now and then stopped by beggars, who sail through the canals from one town to another to ask alms of the people. The beggar boats lie at anchor while the men go on shore and visit the villages. Some of the beggars are lepers, and we pay them well to keep out of our way. There are also police boats, and customs boats whose business is to collect taxes on shipping.

The Chinese rivers are infested by pirates. We carry guns, and have a little cannon in the front of our ship. Here and there at the edge of a village we see a boat or ship cut in half and standing upon end. We are told that it once belonged to pirates and marks the place where they were beheaded, the boat having been set up as a warning to others.

As we continue our journey, we discover that every locality has its own kind of boats, the only thing common to all being the eyes painted on each side of the prow. The Chinese have a tradition that a boat must have eyes to see its way through the water; so the small boats are given small eyes, the cargo boats eyes a little larger, while the eyes of the ships are as large as soup plates. During a trip on the Pei River I once happened to hang my feet over one of the eyes of the boat, whereupon the captain rushed up and begged me to move. Said he, in a peculiar English that some Chinese use in talking to foreigners: "Boat must have eye! No have eye, no can see! No can see, how can go?"

Boats on a Chinese river. They are moved by sails only.

This eye superstition is prevalent among the uneducated Chinese. Indeed, when the first railroad locomotive was built, the workmen insisted that an eye should be painted on each side of the smokestack so the engine might be able to see its way along the track.

It is safe to say that many millions of Chinese are born, live, and die upon the water. The boats carry numerous people, and they are the homes not only of the sailors but of their families as well. Near Canton, on the Pearl River, there are said to be three hundred thousand people living upon boats of various kinds. On the larger craft we shall see the swarming children playing about upon deck. The little boys often have barrels about a foot long and six inches thick tied to their backs, as life preservers; for if the children fall overboard, the barrels will keep them afloat until their parents can pull them out of the water.

Among the queer boats on the Pearl River are those devoted to the rearing of ducks and geese, a business in which the Chinese are exceedingly skillful. They hatch goose eggs and duck eggs in baskets of chaff, placing them in rooms heated by charcoal to just the right temperature. When the little goslings and ducklings come out of their shells they are carefully handled, and for five days are kept away from all noise. They are fed upon rice water and then upon boiled rice, and at the end of two weeks are put on these boats and left to shift for themselves.

The duck boats are built like rafts, with coops hung to the sides. In these coops and on the boats the fowls stay, a single vessel often holding as many as one thousand young geese or ducks. A duck boat is rowed up and down the creeks until it comes to a low, swampy place. Here the owner opens the coops and puts out a board which extends from the boat to the bank. The ducks immediately run

off over the board and begin to hunt in the mud. They dig down into it with their bills and pick out all the worms and snails they can find. After they have fed several hours, the captain of the boat makes a peculiar call, and the ducks, obeying his voice, return to the boat. They come quickly too, for the last duck always gets a blow with a stick. When the ducks are grown, the captain carries them for sale from town to town in his boat. There are fowl markets in all the cities, where thousands of geese and ducks are sold every day. Eggs are among the important exports of China, several hundred millions being sent every year to the United States and other countries.

XXIV. IRRIGATION IN CHINA — FARMS AND FARMERS

IN our travels on the boats through interior China we often find the farmers irrigating their fields. The Chinese rivers are mighty earth carriers. They bring down from the mountains the richest of fertilizing materials, being often so loaded with mud that they turn the bright blue of the Pacific to a dirty yellow for a great distance from their mouths. This is especially so with the Yangtze and the Hwang, the effects of whose waters can be seen for thirty miles or more out from the coast. At certain times of the year the Yangtze is as thick as pea soup. It is loaded with a silt which makes the land over which it is spread very rich, and the farmers use every possible means to save it. Lifting the water in tightly woven baskets to which ropes are attached, they empty it into canals so that it flows over their mud-walled fields. They also use mud scooped up from the small streams and canals.

Coolies turning a wheel which pumps water for irrigation. This is one of the many machines used in China which employ human energy instead of steam or electricity.

Many of the odd irrigating machines are worked by cattle or men. One is a rude horizontal wheel, the cogs of which move in a small upright wheel to which is attached a chain pump. As the wheels turn, the pump raises the water and empties it into a trough from which it flows to the places desired. A water buffalo drags the first wheel around, to give the power. Other machines are worked by men who walk up the outside of wheellike frameworks, always stepping upward. Their weight keeps the wheel moving, and thus raises the water. When we reflect that there are many thousands of men and animals working in this way, we can see that a great deal of irrigation goes on.

The Chinese are a nation of farmers, but their tools are rude, and they have little machinery. Almost every kind of farm labor is still done by hand. Such crops as wheat, oats, and millet are weeded and hoed by hand labor. The plows are so poor that they only scratch the soil.

Nevertheless, the land is so rich in some places that one acre even under such crude cultivation, produces enough food for six persons. The farmers know the value of fertilizers, and everything is saved for the purpose. Potato peelings, the hair cut from the heads of the family, the remains of old houses, and all sorts of manure are saved to enrich the farms. We see boys and girls raking over straw and even pulling the stubble to use in this way, or for fuel.

A country so large as this must have great pasture lands. These are to be found mostly in the mountains, and in Manchuria, Mongolia, and Tibet. In one province are six hundred thousand head of cattle. In China Proper, however, few animals are raised for their meat or milk. Pigs are reared everywhere, and pig bristles have become an important article of export. Nearly all the food of the

country is produced inside its boundaries, most of it in China Proper. This means that China raises four times as much food for the amount of land it comprises as the United States.

In southern China we often see water buffaloes at work in the fields, doing all sorts of heavy farm labor, such as plowing, hauling, tramping out grain in threshing, and turning mills. They look somewhat like cows. These animals have flat horns extending almost horizontally backward from over their eyes. Their bodies are covered with a thin growth of black hair that stands out like bristles, and they appear clumsy and awkward.

In northern China plowing is done with ponies and donkeys. In a field near Peiping I once saw a man and a donkey hitched up side by side, dragging a plow. The sweat was rolling down the man's face, and he bent almost double as he toiled, trying to keep up with the donkey. Near him I photographed a man who had harnessed up his two sons and his daughter, and was plowing with them. He was pushing hard upon the plow handles, and the children were straining as they tried to break up the ground. When the man saw me taking his picture, he became angry. Many of the Chinese believe that photography is a magic art, and that the photographer can, if he will, compel the person whose picture is taken to obey him, and may cause him all kinds of trouble. The plowman evidently believed I was dealing in witchcraft, and he tried to seize my camera to break it. I jerked it away and rushed for my donkey. He ran after me, but my Chinese servant came to my aid and held him, so that I was able to mount and make my escape.

The crops raised by the Chinese are of many varieties. The surface of the country is so irregular, and it runs through so many degrees of latitude, that it yields almost

everything grown in the United States. Large crops of rice, tobacco, and cotton are raised in the south, while wheat, millet, buckwheat, corn, and beans are the chief farm products of the far north.

The first mention of rice in history is in 2800 B.C., when the Emperor Chin-Hung established a ceremony for the sowing of the principal grains, the most important of which was rice. It is grown in all the eastern and southern provinces, and the annual rice crop is so large that if it were divided among the people of the United States, every man, woman, and child might have a pound and a half a week throughout the year, and there would be some to spare.

Cotton was grown in China before America was discovered, and even now China produces more cotton than any other country in the world, except the United States and India. Opium is grown in the Yangtze valley and elsewhere. It comes from a special variety of the poppy, which is cultivated for that purpose.

XXV. A LAND OF SILK AND COTTON

DURING our travels through the valley of the Yangtze, we often pass orchards of mulberry trees, which are planted and cultivated to supply food for the silkworms. Silk is produced in almost every part of China, but the region south of the Yangtze and north of the Si River, which flows by Canton, is famous for this industry. We have taken a houseboat at Shanghai, and are now moving slowly along the rivers and through the canals, which make this part of the country a network of waterways. On our way we pass thousands of little mud farmhouses, in which

Native woman spinning cotton by the old method.

silk reeling is done, and now and then visit cities where there are great factories, or filatures, filled with modern machinery for unwinding the threads of the cocoons and twisting them together into the raw silk of commerce. The Chinese use more silk than any other nation, and the work of rearing silkworms and spinning and weaving the

thread employs hundreds of thousands of men, women and children.

Now we have stopped at a mulberry orchard. The trees are so small that it looks more like a thicket than a forest. The trees are cut down to about four feet, the sprouts being clipped off year after year. The orchard is cultivated and fertilized in order that it may have the best leaves as food for the silkworms. We see men digging out the mud of the canals and putting it around the base of the trees, and children go along the roads picking up bits of manure and other things to enrich the soil.

At one place we visit a farmer who tells us how the mulberry trees are grown. The seeds are planted in nurseries, and when the sprouts are two or three feet high they are set out in regular rows, five or six feet apart. They are carefully pruned, the leaves coming out on the fresh sprouts from season to season. A sound mulberry tree will last fifty years and give one hundred pounds of leaves every year. The trees have to be carefully watched, and sprayed as we spray our apples and peaches.

We have already seen how they rear silkworms in Japan. They are produced in much the same manner in China. The cocoons are often sold by the farmers to the owners of great factories, and some are exported. They are sometimes drawn out into raw silk by the men who raise them, and made into ribbons and cloth in the homes, but a great part of the silk made for export now comes from the modern silk mills.

At Nanking we visit the looms where in the past the satins and velvets were made for the emperor and his court. They are still weaving goods there. For centuries China was almost the only country that produced any silk, and it is said to have been making this beautiful cloth for

four thousand years. Other nations did not know how to rear the silkworms or to reel the cocoons. Then, about 400 A.D., it happened that a Chinese princess was married to a chief of another country of Asia, and when she left home she carried with her some seeds of the mulberry plant and eggs of the silkworm. She started a silk business in her adopted country, and from there the industry was taken to Europe. Japan now produces more silk than China, but about one third of the world's raw silk comes from the latter country.

In many of the larger cities, millions of spindles are whizzing around making yarns, and modern looms are weaving the silk into cloth. There are many children at work in these mills. In one little section, not far from Canton, are about two hundred filatures and factories, in each of which several hundred girls are employed. The girls tend the machines that reel the fine threads from the cocoons and spin them into the raw silk sent to our country. The Chinese are making more and more silk by modern machinery. Some of the schools now teach their pupils how to grow mulberry trees and rear silkworms, as well as the arts of designing, spinning, and weaving.

Most of the Chinese people are too poor to wear silk, and the clothing of the poorer classes is cotton. The Chinese consume so much cotton cloth every year that if it were all made into one piece it would carpet a roadway more than twenty miles wide, reaching from New York to Chicago. They also use cotton for wadding their garments, for their winter clothing is padded and quilted. As there are very few fires in the houses, the people put on extra suits of clothing as the weather grows colder. For these reasons China consumes a great deal of cotton, some of which is imported from the United States, but most of which is

Interior of a cotton mill. Here the cotton is handled much as it is in our country.

raised here at home. Their methods of raising cotton are different from ours. They have no large plantations, and the cotton is sometimes planted in the wheat fields between the rows before the wheat is harvested.

Much of the cotton cloth is woven on hand looms, but there are now large cotton factories in the chief industrial centers. Those of Shanghai have several hundred thousand spindles, employing tens of thousands of Chinese men, women, and children. There are large mills also at Hongkong, Hankow, Ningpo (nĭng-pō′), Soochow, and many other cities all over China.

A visit to one of these cotton centers will show us how China is changing, and how rapidly it is adopting our Western civilization. Take, for instance, the city of Tungchow (tŏŏng-chō′), situated on the north bank of the Yangtze in the heart of the fertile Yangtze valley, about one hundred miles from Shanghai. This city, which is about the size of Memphis, Tennessee, is the center of a cotton district growing over one million bales annually. It has modern cotton mills with many thousands of spindles, and a modern cottonseed-oil mill. It has an iron foundry, a match factory, and a silk filature, all equipped with modern machinery. It has experiment stations where the best methods of growing cotton and silk are sought for, and an agricultural college with foreigners as teachers. The district is building hundreds of miles of new roads. It is putting in electric lights and electric power plants. As a result of the improved roads, motor trucks and motor cars now vie with the wheelbarrows and carts in carrying the traffic, and the whole district is alive with modern customs and ways. As similar changes are going on in other parts of old China, many of the picturesque or unusual scenes we now behold will soon be things of the past.

XXVI. AMONG THE TEA FIELDS — BAMBOO

ANOTHER of the chief crops of the Chinese is tea. The people are fond of this drink, every one of the four hundred millions of them having tea of some kind every day. The custom came into general use about 700 A.D., when the leaves were first made into pickles. Now they are brewed, and the liquor is used as we drink it. The tea is usually grown in small patches or gardens around the homes of the farmers. After it is picked and dried by the families, it is handed over to middlemen, who prepare it for the market.

The best Chinese tea comes from south of the Yangtze, where the leaves are picked three times a year. The first picking, which consists of the tenderest leaves, is the best, and fast ocean steamers race with it to Europe, and across the Pacific to San Francisco and Seattle, knowing that that which is first sold will bring the highest prices. Much of this tea goes northward to the Trans-Siberian Railroad, and thence on to Europe.

At Hankow, situated on the Yangtze about seven hundred miles from its mouth, we find large steamers taking on cargoes of tea boxes, and also factories in which the leaves are being prepared for the market. The tea is fired, or roasted, in much the same way as we saw in Japan. After firing, the leaves are picked over by women and girls, who sit at tables with the tea on trays before them. Their hands move rapidly, and they show great skill in picking out the best leaves. We can see their bound feet showing below their trouser legs as they work. After grading, the tea is packed in lead-lined boxes for shipment abroad.

We are interested in knowing how brick tea is made. There are many factories at Hankow, the business being

largely in the hands of the Russians. In making brick tea, the leaves are ground to a powder, and then steamed until mushy and soft. They are then put into molds the size of a brick and pressed into shape. Tea of the finer varieties is made into small bricks the color and size of the cakes of sweet chocolate sold in our confectionery stores. The brick tea is pressed so hard that it is almost impossible to scratch it with a knife, and it must be broken before it is used. It is carried on camels into the Desert of Gobi, and on the backs of men to Tibet, where it is so much in demand that it often passes as money, each brick being worth about fifteen cents. The Tibetans cook the tea with butter and dough into a soup like that we saw in Mongolia.

Among other centers for the shipping of tea are Shanghai, Hangchow, Canton, and Foochow, the exports being many million pounds every year. Much of the product is used by the Chinese themselves; a great deal goes to Great Britain and Russia, and also to the United States, the amount we annually receive being about five pounds for every family.

Comparatively few years ago tea was unknown outside of Asia. It was first carried to England about six years before the English took New York from the Dutch. Twenty years later about five thousand pounds of Chinese tea were shipped to London as a speculation, but the people did not like it and it became a drug on the market. Now Great Britain imports more than three hundred million pounds of tea every year. For a long time our tea came to us by way of Europe, and we all remember that it was the tax on tea that helped to bring about our independence. A hundred years ago, sailing ships raced each other home from China to bring us each year's new crop. To-day we import tea from Japan, China, and India, spending about eighteen million dollars for it yearly.

A grove of bamboo. This is the home of most of our fishing poles.

Another important plant found in all parts of southern China is the bamboo, which grows from forty to eighty feet high and has a hollow stem, with joints here and there. We all know it in our cane fishing poles. The bamboo belongs to the grass family. It grows wild in thickets, and is also set out in plantations. At the start it looks much like grass, but it rapidly grows taller and thicker. Certain varieties grow as high as a six-story building and as thick at the base as a telegraph pole; some shoot up several feet in one night. There are fifty or sixty varieties of bamboo, and four colors—green, purple, yellow, and black.

The bamboo is almost as important to China as iron is to us. It forms the roofs and walls of some of the houses, as well as the pipes through which the water is carried. It is used for making chairs, beds, and all kinds of furniture. It is employed for buckets and cups, and even spittoons. Its splints are woven into baskets and matting, and form a framework for umbrellas, lanterns, and fans. It is woven into hats to ward off the rain or sun, and a raincoat is made of its leaves. It is the old man's staff, the blind beggar's stick, the rake of the farmer, the foot rule of the carpenter, and the pen of the scholar. It is the pillow of the woman at night and her comb when she rises. Ground into a fiber and soaked, it forms a pulp from which the Chinese make paper. It is made into inkwells and vases. The tender shoots are dug up and cooked as a vegetable, and the seeds are ground into a flour.

1. Name three of the chief rivers of China. Locate them. Which is the most important to trade? Where is the Grand Canal? For what was it built? Describe some of the queer boats and boat people. Why do the boats have eyes?

2. Take a trip up the Yangtze and tell what you see. Where is Hankow? Shanghai? For what are they important?

3. Go through one of the farming regions and describe it. Mention some of the methods of irrigation. What are water buffaloes?

4. Name some of the chief crops of China. What food grain is most important?

5. Visit the silk country and tell the story of silk. Why is China called the land of silk? How did silk come to Europe? (For further information about silk see Carpenter's "How the World is Clothed.")

6. Describe the cotton industry. Where does a great deal of China's raw cotton come from? What share has China in the cotton production of the world?

7. Visit the tea farms and tell how tea is grown. What is brick tea and how is it made? (See Carpenter's "How the World is Fed.") What other lands raise tea?

8. Give some of the uses of the bamboo plant.

XXVII. COMMERCIAL AND INDUSTRIAL CHINA

AS we go on with our travels in China we must study the people and their industries to find out the kinds of goods they might buy of us in exchange for the silk, tea, matting, and many other things we buy of them. The most important of these is modern machinery. As it is now, a great many things are manufactured by hand, as we have seen in the production of silk, cotton, and tea. But we are already selling them machinery for their cotton and silk mills, and they are beginning to buy locomotives and rails for new railways, structural steel for great buildings, and all sorts of things made of iron. They are buying paper-making and wood-working machinery, and quantities of kerosene, gasoline, fuel oil, and lubricating oil.

Modern iron factory in Hankow. This is the Pittsburgh of China.

Chinese cobbler. Most of the shoes worn are made by hand.

In the past nearly everything in iron and steel to be found in China was made by hand. As we go through the country we see thousands of blacksmiths pounding out tools upon anvils, and in some places even making razors out of old horseshoes. There are other thousands engaged in woodworking of various kinds. We go through long streets where they are shaping brass wear and copper uten-

sils, including funeral urns. There are places where they make fans, umbrellas, furniture, and earthenware of all kinds by hand. For centuries China has had a great population, and for a long time it produced almost everything it consumed. The country is still one of house industries; that is, a land where most things are made in little shops or in the homes.

Since modern machinery has been coming in, factories have been springing up in some of the chief centers. We have already seen examples of this at Tungchow, and at Tientsin, Peiping, and Shanghai. At Hanyang, adjoining Hankow, on the Yangtze, about seven hundred miles from the coast, are iron and steel works that would be considered extensive in any part of the world. Tens of thousands of men are employed in the smelting furnaces and rolling mills there, and they are manufacturing steel of all kinds for the new Chinese railways. China has great beds of coal, iron, and limestone, so that it can produce steel cheaply, and it will some day have a large export of machinery. Its mineral deposits are perhaps the richest on earth.

There is one industry for which the Chinese have always been famous, and which is still carried on almost altogether by hand. This is the manufacture of porcelain; that is, an especially fine, hard, translucent earthenware. Indeed, the word "china," which is commonly used for all porcelains, comes from the fact that such ware was long ago shipped from China to Europe. The Chinese say that their people were making porcelain seventeen hundred years before Christ. While this is probably too early a date, the first specimens came to Western countries at about the time of the Crusades, and Marco Polo relates that he saw it manufactured in China about 1280 A.D.

Perhaps the most interesting of all the places where they make porcelain is at Kingtechen (kĭng′tĕ-chĕn′), on Poyang (pō-yäng′) Lake, not far south of the Yangtze, and hundreds of miles back from the sea. The city is about ninety miles south of the river, near an abundant supply of clear fresh water, and not far from great beds of white clay. Pottery has been made there since 220 A.D., and to-day several hundred thousand people are engaged in the work.

After the clay is thoroughly cleansed in the pure water, it is dried and sifted and refined until it is ready for the potter. It is then wet and mixed together by boys who tramp up and down in it in their bare feet. It is shaped upon a wheel or by hand, and then fired with a fuel of straw or wood in egg-shaped ovens about fifty feet long and twenty feet high. The hot fire required is kept up for a night and a day, after which it is allowed to go out; but the oven is not opened until twenty-four hours later, for the china must cool slowly, and the cold air rushing in might cause it to crack.

As soon as the china has cooled it is handed over to the painters. Often a dozen men will work on one piece before it is finished. One artist will sketch the design, and others may fill in the trees, flowers, butterflies, birds, or human figures of which it is made up. After this the ware must be fired again to fix the colors. This is done in circular ovens heated by charcoal.

Much of the china made here is tableware such as we use on our tables. The patterns are of many varieties, and one of them, called rice china, is made by cutting out little holes in the porcelain, which makes the dishes look as if grains of rice had been pressed into them while the clay was being molded. The wages of the porcelain makers range from a few cents to a dollar per day. Millions of

In this porcelain factory are manufactured dishes of all kinds, from these huge jars to tiny cups and saucers.

dollars' worth of porcelain is now made every year, but with the introduction of modern machinery, the output will be many times what it is now.

As we travel on through the many cities and villages of China, we are amazed at the numbers of the people and at the many things they might require which could be made in the United States and sent here for sale. Until within a few years, the newspaper was unknown to the people, but now Shanghai has seventy-three dailies, Peiping has thirty, and Canton thirty-nine. There are over a thousand newspapers in China, and in time they will be published in all parts of the republic. Since the country has but few forests from which the wood for making paper can be procured, the people will one day have to import paper and printing machinery from the United States and other places.

Our country, with more than one hundred million people, has more than two hundred and fifty thousand miles of railway. China, with four times as many inhabitants, has now in use or under construction, less than ten thousand miles. When its railways are as thick as those of the United States it will have more than one million miles. A great part of the materials for these roads must be imported, and as our resources are greatest and shipping things to China is easy for us, the United States ought to furnish more of the locomotives, railway cars, and construction materials than any other country.

To-day the railways connect only a few of the largest cities of the republic. We passed over one of the chief roads of North China in traveling from Tientsin to the Great Wall and into Manchuria. Another important railway runs from Peiping south to Hankow on the Yangtze, and this has been continued south toward Canton and Hong Kong (hŏng-kŏng′). Tens of millions of people live

along this line. There is a railway from Peiping to Nanking, Shanghai, and Hangchow, all of which are very large cities, while in the far south the French have constructed a road through Tonkin (tŏn-kĭn′) to Yünnan (yün-năn′), from which a line into Burma is planned. There are valuable copper and tin mines in that region, and it will probably become a great manufacturing center.

Many railways are already planned for China, and contracts have been let for thousands of miles of new lines. When these are built, the new republic will have put on the seven-league boots of modern progress, and will be one of the greatest manufacturing countries of the world. After we get home we shall have to watch the newspapers daily to keep track of what this great people is doing.

XXVIII. QUEER CUSTOMS OF TOPSY-TURVY LAND

AS the Chinese have come into closer touch with the people of America and Europe they have gradually given up many of their old national customs, and they are now becoming more and more like ourselves in dress and habits. In this, our last day in China, let us consider some

of the strange-seeming customs which have been followed by the Chinese for thousands of years and are now passing out of use. The country is on the opposite side of the world from America, and it really seems to be turned upside down. We might even call it Topsy-Turvy Land, for many things are topsy-turvy. Until recently, the two nations have thought differently, and even now many of us call them heathen, and some of them look upon us as little better than savages. They think our ways rough, and when we consider how courteous they are to one another, we wonder if they are not right. They really pity us because we do not act, dress, and live as they do.

When two Americans meet, they clasp hands, but when two Chinese friends come together they shake their own fists at each other, and if they are going in the same direction, walk off like geese, single file.

The Chinese do not kiss and seldom embrace. In bowing to one another they bend down almost to the ground. We take our hats off when we enter a house; the Chinese keep theirs on. We ask first after the wives and daughters of our friends; the Chinese consider such questions as insults, and the girls of the family remain out of the room when men call on their fathers or brothers.

Chinese girls are not courted. Marriages are arranged by parents through professional matchmakers, and a husband seldom sees his wife until he is wedded. The wife is the slave of her mother-in-law, who has the right to whip her if she does not obey.

In China the men wear the finest embroidery, and in the past high officials had their hats decorated with feathers and wore strings of beads around their necks. The men have long stockings, while the women go about in short socks. The Chinese women wear pantaloons, above which is a

coat coming halfway down to their knees. When in full dress the men wear gowns reaching from their necks to their feet. A Chinese gentleman's shoes are of cloth; ours are of leather, and we black them all over, while he whitens the sides of the soles.

The Chinese begin their books at the back instead of the front. In dating letters they put the year first, then the month, and lastly the day. Their newspapers begin on what we should call the last page, and the columns run differently from ours. There are theaters, in which the performances are carried on during the daytime; and the audience is given watermelon and pumpkin seeds to nibble as the acting goes on.

They have queer kinds of food, among which are bird's-nest soup and shark fins. They boil their bread instead of baking it, and eat their eggs hard boiled. They pickle eggs in lime, and the older such eggs are, the better they like them. They never drink cold water, and even their wine is served hot. They eat from tables as we do, but use chopsticks and not forks. Most things are served in small porcelain bowls, the meats being cut into cubes.

These people do not wash their hands before dinner, but a servant brings a hot, wet cloth to the guests at the table, on which they rub off their hands and faces, passing it from one to another. They seldom wash the whole body, and it is said that many of them receive but two baths while on earth, one at birth, and the other when prepared for the coffin.

The Chinese baby has no cradle. It is strapped to the back of its mother or a servant. When it first begins to walk, it is given a pair of knit shoes with a cat's face on the toes, this being supposed to render it as sure-footed as a cat.

The boys fly kites, but the best kites of China are owned

This man can eat rice as well with his chopsticks as we could with a fork or spoon.

by the men, who enjoy them as much as the boys. Cock fighting and quail fighting are common, and in some of the cities we see men kneeling down on the streets about little

A public cookshop, where poor people can obtain food free.

bowls in which crickets are placed to fight. These insects are urged on by being tickled with straws, and they fight until they are dead. A good fighting cricket is valuable, for high bets are made as to which will conquer.

One of the most striking features of China is the terrible poverty of the lower classes. But this is not because the Chinese are wasteful. We are surprised at the saving we see. Nothing is wasted. The stubble of the wheat, oats, and millet is pulled from the ground, and even the leaves of the trees and weeds are gathered for fuel. The poor man does not build a fire if he can help it, while even the rich use clothing rather than fire to keep out the cold.

In southern China rice is cooked in large quantities, and rewarmed when eaten by pouring hot water over it. To save making a fire, the hot water is often bought from

In a Chinese printing shop.

hot-water peddlers, who are to be found on the streets of the cities. Some towns have a hot-water store for every twenty families.

At the restaurants all scraps of food, even the tea grounds, are saved. The water in which vegetables are boiled is sold for feeding hogs, and the bones are cut from meat that they may be used for making chopsticks.

Many of the Chinese cities have public cookshops and soup houses, kept open by charity during the winter but shut up as soon as spring comes, when the poor are turned out to grass, as we say of horses, for they can then live on green things and wild fruits. Indeed, the Chinese have learned to need so few things that for ten cents a day a man can buy enough to keep him alive, and on four dollars a month he can support a family and lay something aside for his funeral.

There is no country where labor is better organized. Every trade has its union, and the bankers and merchants have their own guilds. The working classes have always opposed new inventions, and the officials have been afraid to let them be introduced on account of the trade unions. They delayed a long time making railroads for fear of the union of cart drivers, boatmen, and wheelbarrow pushers; but now they see that China must have these things to hold her place in the world as a nation.

XXIX. FOREIGN COLONIES IN CHINA

WE have left the mainland of China and are now on the little island of Hong Kong, at the mouth of the Si River, almost touching the coast. The island belongs to Great Britain, having been given up by the Chinese, in 1841, after a war between the two nations. It is one of several portions of territory which China has been forced to part with, either forever or on long leases, to certain other governments with which she has warred.

We saw something of one of these territories on our way from Korea to China when we went to Port Arthur and Dairen, and of another during our visit to Harbin, in the northern part of Manchuria. The southern part of the Liaotung (lē-ou-tŏŏng′) peninsula in Manchuria was leased to Russia by China, and when the Japanese conquered the Russians this land came to Japan. The city of Dairen has many Japanese stores, while the great fortifications of Port Arthur are manned by Japanese soldiers. The Japanese control the southern half of the railroad running north from Dairen to Mukden and on to Harbin; but the

Russians have certain privileges in northern Manchuria and over the rest of that road.

Crossing from Dairen to Chefoo (chē-fo͞o′), on the Shantung (shän-to͞ong′) peninsula, we visit Weihaiwei (wā-hī-wā′), another bit of territory leased to Great Britain; and sailing on around that peninsula we reach Tsingtau (tsĭng-tou′), on Kiaochow (kyou-chō′) Bay. Tsingtau was built up by the Germans, to whom it was ceded in 1897 on a ninety-nine-year lease because of the killing of two of their missionaries. At that time it was only a poor fishing village, and but few ships came into the bay. It is now a fair-sized city with good buildings and modern improvements introduced by the Germans. It has wide streets and good stores. In the great docks which have been built, steamships are moored. A railroad has been constructed far back into the interior. In 1914, Tsingtau was captured by the Japanese, who had previously advised Germany to withdraw so that the settlement could be returned to China. After the World War the Japanese continued to hold the port until 1922 when it again came into the possession of China. There is a railway from the port to the city of Tsinan (tsĭ-nän′), on the trunk line from Tientsin to Shanghai.

Another territory which China has lost to foreigners is Macao (mȧ-kä′o͝), on a little peninsula south of Hong Kong. This belongs to the Portuguese, who have occupied it several hundred years. It is one of the oldest foreign settlements in China, but is of minor importance as far as commerce and trade are concerned. Also near Hong Kong is the bay of Kwangchow (kwäng-chō′), of which the French government has held a lease since 1898.

In addition to the places belonging to these great powers of Europe or to Japan, there are certain sections, or concessions, at all of the chief ports, where the foreigners dwell

Hong Kong harbor, an important British possession in the Far East.

and to a great extent govern themselves. In Peiping, the Legation quarter, where the ambassadors and ministers live, has foreign soldiers to guard it; in Tientsin the English, Russians, French, and Japanese have concessions, so that the place contains several little foreign cities in addition to its many Chinese quarters. In Shanghai, a rich foreign settlement with fine streets, magnificent buildings, costly residences, and large hotels has grown up. The city has newspapers printed in German, French, English, and Chinese. It has stores filled with European goods, and many banks and exporting houses. Its life is a gay one, and the people have cricket, golf, and ball clubs. There are similar concessions at Hankow, Soochow, Canton, and other cities.

But let us take a look at Hong Kong. It does not belong to China, but is a part of the British Empire. When the Chinese gave it to Great Britain, they probably thought it worth nothing. It was all rocks and hills, with a population of only two thousand poor fishermen. The island is so small that we could walk around it in less than a day. It is composed of bleak and bare hills, one of which is so steep that it is almost impossible to climb it except by the cog railroad, or in chairs swung between poles which rest on the shoulders of half-naked Chinamen.

Nevertheless, Hong Kong is now one of the richest and most important ports of the world. It has a greater trade than any other city of Asia. More than twenty thousand vessels enter its harbor each year, and the tonnage they represent compares favorably with that of New York or London. Moreover, now that railroads are building in all parts of China, which will be connected with Hong Kong by its ferry to the mainland, its trade will continue to grow. The city already has large factories, including cotton mills,

Many families spend most of their lives in boats.

flour mills, sugar mills, tin refineries, and shipbuilding yards. It has magnificent buildings surrounding the harbor, and great structures rising in terraces from street to street on the slopes of the hills. It is connected with Canton by a railway which ends at the town of Kowloon (kō-lo͞on′), on the mainland near by.

The population of Hong Kong, which is about as large as that of Pittsburgh, is composed largely of Chinese, but there are thousands of Europeans and Americans, as well

as a garrison of soldiers sent out by Great Britain. Most of the soldiers are Europeans, but some are Sikhs (sēks) from East India, tall, broad-shouldered, black men, who go about in odd uniforms with great turbans covering their heads. There are also Chinese and European policemen.

We land and take a ride through the city proper, which is called Victoria. We are carried ashore in a sampan. The boat is sculled by a woman with a baby tied to her back by a square of cloth, inside which the little one lies, its bare legs sticking out at the front. She stands up and sways to and fro as she handles the oar which moves the boat onward. There are hundreds of such boats in the harbor, upon which people live, and it is said that the boat population numbers nearly seventy thousand. Nearly every boat has three or four children on it.

We are met at the docks by coolies with chairs, who take us through the streets from terrace to terrace and finally leave us at the railroad station, from which we can ride to The Peak. From this hilltop, eighteen hundred feet above the level of the harbor, we have a beautiful view. Great steamers bearing the flags of all nations come in and go out on their way to or from Europe. Some of our own ships have stopped here on their way from the Philippines. We see besides endless numbers of Chinese junks, with odd masts and sails. It is the situation of the island and harbor which makes Hong Kong so valuable to England. It is the southern gateway to China and can easily be defended.

1. Why should the Chinese market be important to the United States? What do we buy of them? What do they buy of us?

2. Visit Kingtechen, and tell how porcelain is made. Have you ever seen any Chinese porcelain? Why is porcelain called "china"? Where is porcelain made in the United States? In Europe? (See Carpenter's "North America" and Carpenter's "Europe.")

3. How many miles of railway has China? How many has the United States? Why should there be a great market for American railway materials there?

4. Mention some of the queer customs among the Chinese, telling how they differ from ours.

5. Where are the foreign colonies in China? Describe them.

XXX. INDO-CHINA

WE are in Indo-China this morning. We have come by steamer from Hong Kong to Haifong (hī-fŏng′), a port at the mouth of the Red River, and taken the railroad which runs from there to Hanoi (hä-noi′), the capital of French Indo-China. We are now in a foreign hotel not far from the little lake that lies in the middle of the city. How hot it is! At noon to-day the thermometer was one hundred in the shade, and to-night the warm moist air of the tropics makes us perspire as we sit on the hotel veranda.

Let us stop a moment and think where we are. We are only a few degrees north of the equator, on the southeastern shores of Asia, and on the great peninsula that extends down from China to the Strait of Malakka (*mȧ* lăk′*a*), including the countries of French Indo-China, Siam, Burma, and the Malay (mȧ-lā′) States.

French Indo-China comprises the eastern half of this peninsula. It belongs to the French, but it is larger than France and about as large as our state of Texas. It has almost seventeen million people, who, like the Chinese, belong to the yellow race, but differ from them in manners and customs, and are darker and much less strong. They are far behind the Chinese in civilization. The two chief cities are Hanoi in the north and Saigon (sī-gōn′) in the far south. Hanoi is on a railroad that goes from the

coast to Yünnan in China, a distance almost as far as from Boston to Pittsburgh. The city has electric street cars and electric lights, with some fine European houses in its foreign quarter. Here also is the palace of the governor-general, and not far away, surrounded by a wide and deep moat, is a fortification where the soldiers live. They are commanded by French officers.

The remainder of the town is composed largely of the dwellings of the natives—cane huts thatched with palm leaves. They have many little villages, which are here joined together, lining the Red River for several miles. The people seem to work hard, but they have

very little skill, and are less intelligent than the Japanese, the Chinese, or the Koreans.

We are now in Tonkin, which is the northernmost province of Indo-China. Just south of it is Anam (*ȧ-năm′*), while farther south still are Cambodia and Cochin-China (*kō′chĭn*). The people and conditions of all the provinces are much the same. They live largely by farming, raising great quantities of rice for their own use and for export. They raise also some cotton and pepper, as well as rubber and sugar. Their chief imports are cotton cloth, cotton thread, tin, and some kinds of machinery. In Saigon are many modern rice mills. The country about has almost two

Route of our travels through Indo-China.

million acres of rice, and raises so much of that grain every year that it could give a pound to every man, woman, and child in the world.

Anam is also a leading rice province. Its capital is Hué (ü-ā′), a walled city on the Hué River, some distance back from the coast. The city stands on a square island, bordered on three sides by the river, and on the other by a canal. It has many old palaces roofed with yellow tiles, like those of Peking, and there are also large court buildings, a library, and an observatory. Many residents of Hué are Chinese.

Leaving Hanoi, we take ship at Haifong, and call at Hué on our way south to Saigon. Here we enter the Saigon River, which near its mouth is as wide as the Mississippi at St. Louis, and so deep that our steamer has no trouble in making its way about forty miles inland up to the city of Saigon.

The greater part of Indo-China is flat, and the land is cut up by canals and rivers. Near the sea, it is so low that the farmhouses are built upon posts on account of the floods. A little farther back the land rises, and we pass through a plain with soil as rich as that of the Mississippi delta. The banks are lined with palm trees. Now and then we pass coconut groves with vast fields of rice behind them. The Saigon is muddy, the silt coming from it and the Mekong (mā-kŏng′) and other rivers at the time of the floods leaving a heavy deposit which makes the land rich. This part of Indo-China reminds us of Florida. The vegetation is much the same, and we sometimes see a crocodile, while huge pelicans with yellow sacks under their throats stand or swim in the water, diving down now and then for fish.

At Saigon we come to anchor amid junks taking on rice for export to China. Each boat has two fat eyes painted

Cutting rice by hand. Farm machinery is little used in Indo-China.

on the sides of its prow, for the sailors are Chinese. There are also French and other steamers loading for Europe, motor boats owned by the foreign officials and merchants, and many small river craft.

Landing, we take jinrikishas for a ride through the city. The streets are wide and well macadamized. The red earth has been pounded down until it is as hard as iron and as smooth as a floor. There are so many palms and other strange trees along the chief streets that the whole town looks like a botanical garden. Some of the trees bear coconuts, others have leaves like enormous fans, and some have masses of blossoms of the brightest of colors. There is one tree as large as an oak which fairly blazes with its brilliant red flowers.

The houses of Saigon are painted the brightest of colors—red, pink, yellow, and blue—and have roofs of red tiles. The town is equipped with telegraphs and telephones, and the chief streets are lighted by electric arc lamps made in France. Back from the city are the small houses in which the natives live, while scattered through the surrounding country are many thatched huts. There are some Europeans, chiefly French. Most of the men are dressed in white cotton, with great thick hats on their heads. The foreign women have clothing from Paris, and many of them carry parasols. Automobiles glide swiftly to and fro, and the life of the foreigners seems to be a gay one. We find the stores filled with French goods. The country has a postal system run by the French, and Saigon has newspapers in the French language. We meet French officers and many native soldiers in French uniforms.

Leaving the foreign quarter, we go by railroad to the neighboring native town of Cholon (shō-lôn′), where we visit the markets. The business here is done in little cells

under a great roof in what is known as a bazaar. The merchants sit in their cells surrounded by their wares. From one of the many jewelry stores we each buy a silver collar to take home. Jewelry is the savings bank of the common people, not a few having all their wealth on their persons. Most of the merchants in the markets are women and girls. Here and there are money changers from India, with little piles of gold, silver, and copper coins on tables before them. The silver pieces are of one dollar, twenty cents, ten cents, and five cents each. The copper coins are in cents and one-fifth cents, each piece having a hole in it that it may be strung upon strings. Leaving the bazaar, we visit some of the rice mills, which are filled with modern machinery, and then go back to Saigon.

The natives of this part of Indo-China wear black clothing of much the same style as the Chinese. The women, in long coats with wide flapping trousers to their feet, go bareheaded with their long, glossy black hair bound in a knot on the neck. The men wear the hair long and tie it up in a twist on the crown. The chief ornament of the women is a collar of silver or brass as thick as a lead pencil, and their dresses are fastened at the neck with buttons of gold, silver, or brass. Most of the babies are naked, and the children wear little clothing until they are pretty well grown. Nevertheless, all are decorated with jewelry. During a visit to Saigon, I saw a girl of four wearing a gold collar, gold anklets, a gold bracelet, ten finger rings, and—nothing else.

Many of the women seem charming until they open their mouths. Then we see that their tongues and teeth are as black as our boots, in mouths that seem to be filled with blood. They keep their jaws moving, now and then spitting out a bright red saliva. The men and children do likewise,

A canal in Saigon. The land is low, and many of the houses are built on piles.

and we ask if the whole race has sore gums. The reply is that they are chewing the betel (bē′t'l), a habit common throughout Indo-China, Malaysia, and even in our Philippine Islands. These people take pride in the custom, saying that any dog may have white teeth, but only those who can afford the betel can have beautiful black ones.

The betel nut grows on the areca (ār′ē-kȧ) palm. It is about the size of a walnut, and has a green skin and a soft, spongy interior, which tastes bitter. It has much the same effect as tobacco upon those who use it, stimulating the nerves and taking away hunger. The native cuts off a piece of the nut, and adds a pinch of lime and a bit of tobacco. He puts this mixture into his mouth, and chews and chews.

1. Bound Indo-China. What great country is on the north? What ocean on the east? What countries on the west?

2. Compare Indo-China with France; with an American state. Who are the Indo-Chinese? To what race do they belong? What are the two chief cities of Indo-China? Locate them. Which do we reach by railway? Which altogether by boat?

3. What provinces has Indo-China? What are their chief resources?

4. Take a trip through the country and describe it. Tell what you see in Saigon.

XXXI. AMONG THE SIAMESE

COMING from Saigon in a French steamer around Cape Cambodia into the great Gulf of Siam (sī-ăm′), we have entered the mouth of the Menam (mȧ-näm′) River about twenty-five miles south of Bangkok (băŋ-kŏk′) and are now in the kingdom of Siam, which forms the heart of the Indo-Chinese peninsula. The country, which is

about five times as large as the state of Indiana, is a land of mountains and valleys, with a plateau in the center, and the great valley of the Menam running north and south through it. The mountains are covered with forests, where the teak tree and oaks and pines grow. There are many swamps, where crocodiles live; and jungles, where elephants, rhinoceroses, tigers, leopards, and flying foxes are found.

Siam, being not far from the equator, has a tropical climate. During the heavy rains from May to October so much water falls in some parts of the country that if it all stayed where it dropped the land would be buried by a vast flood twenty feet deep. The yearly rainfall at Bangkok, however, is only about fifty inches. The dry season begins in November and lasts until May.

During the wet season, the streams overflow, and a great part of the Menam valley becomes a vast lake. Much of the country is irrigated, and the floods bring down rich earth washings from the mountains. During the floods the people go from village to village and from city to city in boats. The houses along the banks of the streams are built on high posts on account of the water, and also because of the tigers and snakes. The people live largely on the streams. There are many houses which have no foundations but the water, and in Bangkok, the capital, there are ten of thousands who are born, live, and die in these floating houses.

The people of Siam number about nine millions. They are of the yellow race, and their original home was in central and southern China, from which their ancestors moved down into Siam. They date their own history back to the fifth century before Christ, claiming that their kings are the descendants of Buddha, the founder of their religion. There are several different Siamese tribes, those of the north-

ern part of the country, known as the Laos (lä'ōs), having their own language and customs and being less civilized than those of the south. In the far south are the Malays. They belong to the brown race and are like our Filipinos. In the central part of the country are the pure Siamese.

All of these peoples take life more easily than those we have seen in Japan and China. They work less, and live largely from hand to mouth. This is partly due to the rich soil and the tropical climate, which make it so easy to supply most wants that there is little incentive to work. The weather is so warm that but little clothing is needed, and no fuel is used except for cooking. The streams are full of fish, and the bananas, coconuts, and mangoes grow abundantly without much cultivation. Most of the houses are rude huts of cane and palm leaves.

The Siamese are fond of jewelry and all sorts of display. They show by their manners that they consider themselves born gentlemen. They are clever, but so unenergetic that they let most of the business be done by the Chinese, who have come here in great numbers to set up little stores in the villages and do the skilled mechanical work of the cities. There are all together one million Chinese in Siam, and they form about one third of the population of Bangkok. Siam has great natural resources. Its moist tropical climate, heavy rainfall, and rich soil fit it for rice, of which it raises vast crops. It produces pepper and spices, coffee, tobacco, and cotton. Plantations of rubber are also being set out.

The forests are especially valuable. Siam has more teakwood, perhaps, than any other country, and hundreds of elephants are employed in dragging teak logs to the streams, and in aiding the men at the sawmills. Teak is a very hard wood, containing so much oil that it does

Floating houses on the Menam. Notice the W-shaped roofs and the verandas.

not rot when in water. It is used in shipbuilding, wagon making, and furniture making, and also in machinery in connection with iron and steel. Thousands of tons of teak, in the shape of great rafts, are annually floated down to Bangkok, and exported thence to all parts of the world.

Siam is rich in gold, iron, wolfram, which is valuable in the making of steel, and zinc. In its southern portions are large deposits of tin. It has also beautiful rubies and sapphires.

As we sail up the Menam River in our steamer from Saigon, we see many floating houses. The stream is wide, and its banks are lined with a tropical jungle. There are coconut and other palms whose leaves wave to and fro in the breeze while below them are trees from which monkeys chatter at us as we go by. One species of monkey has long, gray, silken hair, and a voice like the cry of a baby. We also see parrots and other birds of gay plumage. In one place what at first seems a black log turns into a crocodile, which crawls down the bank and dives into the stream.

After a forty-mile ride we approach Bangkok, a great city stretching out for ten miles on both sides of the Menam, and reaching far back into the country. We can see the spires of its temples above the green trees long before we come to it. In the suburbs are canals running back from the river, with houses floating upon them, making each canal look like a street. As we come nearer the city, the floating houses increase, until at last we find thousands of them on each side of us on the wide Menam River.

What queer-looking dwellings! We can see them plainly as we stand on the deck of the steamer. They are built

upon rafts, so fastened to piles that the houses move up and down with the rise and fall of the tide, which is great at this short distance from the Gulf of Siam. The ordinary house is ten or fifteen feet square, although many are longer and wider. It has a roof made in two ridges, so that the ends look like a gigantic W turned upside down. Many of these floating houses have verandas in front of them, where the people sit on the floor and where the half-naked little ones play about within a few feet of drowning.

Most of the houses are only one story, while few of them have more than three or four rooms. We can see in as we pass. There is hardly any furniture, and we look in vain for sofas or beds, for the people sit on their heels and sleep on the floor. For pillows they use wooden blocks or bundles of stuffed cotton, the size of a brick and almost as hard. The cooking is done upon charcoal burned in boxes half filled with ashes. As the houses have no chimneys, the gas from the coal gets out as it can. The windows are open holes in the walls, and probably there is not a pane of window glass in the whole floating city.

We land at the wharves and find comfortable quarters in a hotel on the mainland, where the greater part of Bangkok lies. The city has more than one hundred miles of carriage roads, and several wide streets upon which electric cars go. It has electric lights and telephones. There are some modern buildings, rice mills, and factories, and also temples, fine residences, and great palaces surrounded by walls. Bangkok is like Venice in being cut up by canals, so that we cross many bridges as we ride through street after street. There are four railway stations, and railways are building through many parts of the Menam valley.

We are most interested, however, in the houses afloat,

Siamese boys are excellent swimmers as well as clever paddlers, and have no fear of their boats overturning.

and we hire sampans and spend the day riding among them. More than one hundred thousand people in Bangkok have their houses on the water and spend the greater part of their lives in such homes. We are told that each pays a rent for a place on the river. When the house owner becomes dissatisfied, he does not need to call in a cart or dray to carry his furniture to another location, but merely unties his house from the posts to which it is fastened and hires a boat to tow it up or down stream. We see houses being moved from one place to another.

The Menam is full of craft of all kinds, including numerous small boats containing peddlers and shoppers. Many of the floating houses are stores, and a child is often sent in his canoe to buy the supplies of the family. We are surprised at the number of boats which fill the river. Some of the smaller ones are managed by children, for every family has its canoes, and the boys often have canoes of their own. Little fellows are rowing boats not more than two feet wide, and so long and narrow that the least loss of balance would turn the rower into the water. Most of the boys are naked except for breechcloths, and all can swim like ducks.

Many of the river craft are managed by women, some of whom are rowing from house to house, carrying vegetables, rice, and trinkets for sale. There are freight boats sculled by lightly clad women who stand up as they push on the oars, and boats carrying merchandise worked by wrinkled old women of sixty. The men often loaf, smoke, and gossip, while their wives earn the money required for the family.

Is not this a strange city? Stop a moment and look at the people. They are a short, stocky race, with yellow skins, thick lips, and rather flat noses. Their eyes are almost as slanting as those of the Chinese, but their features are different. Their hair is jet black, although the old men and women often have hair white as snow. Both men and women wear the hair short, and standing straight up like so many bristles all over the head.

How little clothing they wear! It is so hot we wish we could dress in the same way, for the hot, moist air makes us perspire. Some of the boys and girls are half naked, those under ten years of age wearing only a piece of twine around the waist. To this small charms are fastened to

keep off the witches and spirits. The little ones believe in such things, and would as soon think of leaving off their charms as we would of going out of doors without shirts or trousers. Even the children of rich people go almost naked. I remember once attending a great celebration where I saw a Siamese prince of six years, strutting about clad only in a belt of woven silver an inch wide, and a ring of gold on each of his ankles. Usually, however, on state occasions the princes dress much like the schoolboys of England, wearing short black jackets and top hats. The last king had eleven sons, who made quite a procession when they marched along with him.

A Siamese girl dressed in the costume of her country.

The Siamese men of the poorer classes are usually naked to the

waist, their sole garment being a strip of cotton cloth a yard wide and two yards long called a sarong, which takes the place of our trousers. This is wound about the body over the hips, one end being pulled from behind through the legs and fastened with a twist at the waist. Others add a strip of cloth which they throw over their shoulders. The rich often wear jackets of cotton or silk, in addition to the sarong.

The Siamese women clothe the lower part of the body in much the same way; but they usually add a wide band of cloth which they wrap around under their arms and fasten in a knot over the chest. The babies wear nothing at all, excepting, perhaps, the yellow powder their mothers dust over them to keep off the flies and mosquitoes.

XXXII. THE KING OF SIAM AND HIS GOVERNMENT — BUDDHISM

THE Siamese call their country Muang-Thai, which means "The Kingdom of the Free." Nevertheless, they are ruled by a king with absolute power. Not so long ago all of the people were the slaves of the king, who could command any woman or girl to serve in his palaces. He had power of life and death over his subjects, and when they came into his presence they crawled upon their hands and knees, bumping their heads on the ground to show their subjection.

But these customs are now abolished, and Siam is fast becoming one of the progressive nations of Asia. The king some time ago began to rule by means of a Cabinet, made up chiefly of his nearest relatives, and he also appoints a council of forty members, who make the laws of the

kingdom. He is still an absolute ruler, but every year the people are being granted a larger part in the government, so that in time they may rule themselves.

The country is divided into eighteen provinces, each under a governor appointed by the king. Every province has its own courts and schools, and at Bangkok is a Supreme Court and other government institutions. The chief schools are there, including seminaries for girls, public schools, a university, and colleges of various kinds. Much of the teaching is done in the temples by the Buddhist priests, who are numbered by thousands.

It is in Bangkok that the king lives. His palaces are on the banks of the Menam, covering many acres and surrounded by walls several miles long. The king dwells inside the walls with his wives, and the buildings devoted to the women are never entered by any other man. They are under the charge of the queen, who by law is the king's half sister and must be his chief wife, although he may have several hundred secondary wives. The ladies of the palace have short hair, and they are usually clad in the ordinary Siamese dress, to which they may add a silk jacket and scarf.

But we are told we can visit some of the palaces. We pass the soldiers guarding the gates, and go up a wide drive lined with trees and flowers to an immense building of brick and stone covered with stucco. It is painted white, and under the bright rays of the Siamese sun it appears to be marble. It is several stories high, with wide marble stairways leading up to a great front door. The stairways are guarded on each side, at the bottom, by elephants of iron plated with gold.

We walk between these elephants, pass up the steps, and soon find ourselves in the state reception room, one

A young Siamese prince.

of the most splendid rooms in the world. Its walls are frescoed with gold. Its ceiling is of pieces of glass of all colors, which, with the light shining through them, look almost like jewels. At the back of the room is the king's throne, with the state umbrellas decorated with silver and gold standing beside it. These umbrellas are held over His Majesty when he receives his subjects.

All around, placed against the wall and half filling the room, are trees and bushes with leaves of solid gold and silver and trunks of wood or iron plated with gold or silver. The workmanship is as beautiful as that of the most skillful jewelers of Europe. These trees are among the offerings made every year to the king by his officials and the rulers of his tributary provinces.

Leaving the palace, we call upon the Cabinet ministers. They tell us Siam is rapidly improving in civilization and wealth. The king is introducing telegraphs, telephones, and electric lights, and building roads and railroads. He has established post offices everywhere. We pay only five cents apiece for the stamps which carry our letters home to the United States. The Minister of Agriculture tells us they are improving the farms. He says that the chief crop of Siam is rice, the national food as well as the principal article of export. The money received every year from that sent abroad now amounts to over fifty million dollars, and new rice lands are being brought under irrigation. Later on we visit the rice mills, of which there are many in Bangkok. They are operated by steam and are equipped with modern machinery.

One of our most interesting excursions is to the palace stables to see the white elephants. Siam is called the "Land of the White Elephant." There is a picture of an elephant on the national flag, and it is also stamped on the

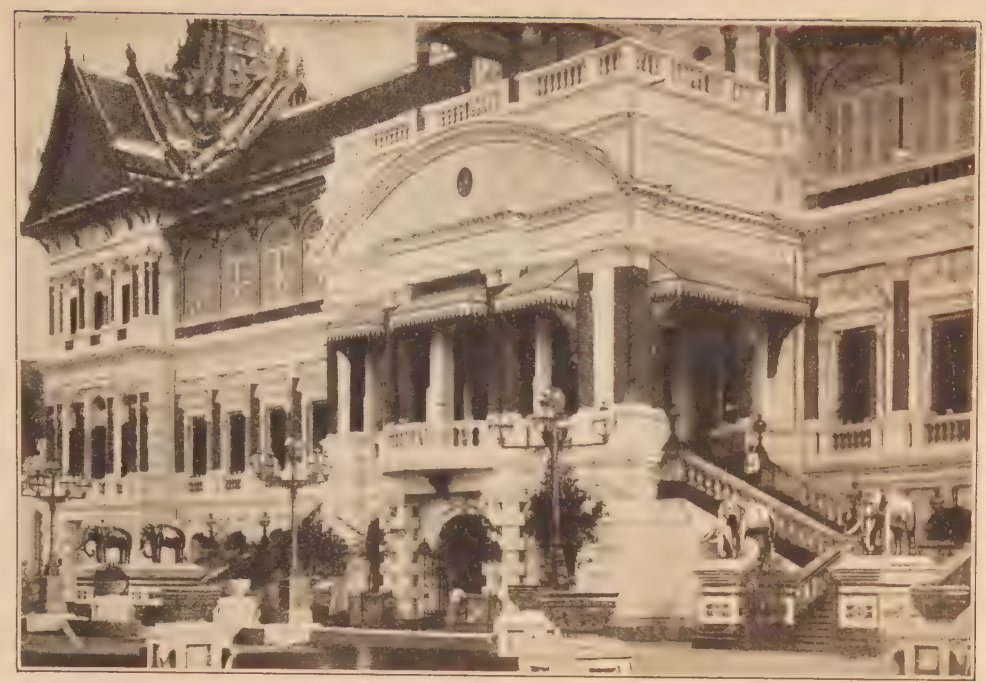
coins. When the king and princes ride out in state, it is upon elephants, and the people seem to honor the elephants quite as much as the king.

The reason for this we find in Buddhism, the chief religion of the Siamese. They believe that at death the souls of men enter the bodies of animals and that every animal has in it the soul of some person. The souls of the good, and of kings, saints, and heroes, are supposed to be born again as white animals. The white elephants are therefore royal beasts and are worshiped as containing the spirits of great men. The Siamese have always treated them with honor, and until some years ago they gave every white elephant a special attendant. They covered his skin with velvet cloths and bound his ivory tusks with golden bands. From time to time shows and concerts were given in his honor and golden chains were hung around his neck. Having heard many such stories, we are all agog to see the white elephants.

What do we find?

Nothing but wild-eyed, scraggy-looking beasts, with long tusks and skins not much whiter than those of the elephants we see in the circus. The only parts really white are the long flapping ears, the remainder of the body being ash-colored in spots. Later on we go to the museum and ask the scientists where the white elephants come from. They tell us that as there is no such thing as a healthy white elephant; these beasts are really sick elephants, their whiteness being caused by a disease of the skin and not by the spirit of any great hero, as the common people suppose.

Looking at the elephants, we doubt whether His Majesty himself now believes that they are such wonderful creatures. The animals are kept in dirty stables, chained by their feet



Palace of the King of Siam. Notice the statues of elephants at each side of the entrance.

to rough wooden posts, and cared for by men who evidently hold them in little respect. As we watch the huge beasts, the chief keeper holds his hand out to us for a present. When we give him a few coins he makes one of the royal white elephants kneel down and salute us by raising its trunk.

We go from the elephant stables to the temples to learn more about the Buddhist religion, which has millions of followers also in Tibet, Burma, Japan, Korea, and some parts of China.

Buddhism was founded by a prince named Siddhartha (sĭ-där′tȧ), who was born in northern India in the sixth century before Christ. Brought up in luxury and splendor, it was not until he reached manhood that he knew of the poverty, trouble, and evil existing in the world. He then came forth from his palace and, overcome with sorrow by the woes and wants of mankind, decided to go forth and learn how to relieve them. Starting out as a beggar, he spent his life in the search. After a time, when he thought he had discovered the way, he went about preaching it. He called himself Buddha, which means "the enlightened." Many considered the religion he taught the true one, and in time it came to be called the Buddhist religion.

Buddhism has changed greatly since it was first taught, until it now contains many strange beliefs. In many places it is but little better than a worship of idols, carried on with the aid of lazy, ignorant priests. There are more than one hundred and seventy thousand priests in Siam, over ten thousand of them in Bangkok. We meet them everywhere as we go through the city. Their heads are shaved, and they have strips of yellow cloth wound about their half-naked bodies. Far from humble, they strut

A Buddhist temple at Paknam, at the entrance to the Menam River, near Bangkok.

along smoking cigars and chewing the betel as they walk from door to door begging for rice.

We spend several days in the temples, which are gorgeous beyond description. Some cover acres, having gold-plated spires taller than the tallest of palm trees. The temple where the king worships has a spire that cost one hundred thousand dollars to gild, and its doors are of ebony inlaid with mother-of-pearl. Its chief room has a carpet of silver wires woven together.

This temple contains an idol a foot high and eight inches wide, all of pure gold and jewels. When the metal was still liquid in the melting pot, sapphires, rubies, and diamonds were stirred into it, and the mixture was cast into this little god. The idol is on a pedestal, or shelf, high above the floor of the temple. The little silk scarf about its neck is changed every season. Before it the king comes to pray, and there the ladies of his palace bow down at certain times of the year.

1. Who are the Siamese? Where do they come from? Compare them with the Chinese and Japanese.
2. Locate Siam. Compare it in size with your state. Of what great peninsula is it a part? Name its principal river.
3. What is the chief grain raised in Siam? The most important wood export? For what is it used?
4. Take a trip through Bangkok and tell what you see.
5. How is Siam governed?
6. What is the religion of the Siamese? Who founded it?

XXXIII. SINGAPORE AND THE MALAYS

LEAVING Bangkok, on our way to Singapore, we steam eight hundred and forty miles to the southward over the Gulf of Siam to the Strait of Malakka,

within a few miles of the equator. Our voyage takes several days, for the steamer is slow. The way is through summer seas and amid tropical surroundings. All nature is changed. At night the stars seem more brilliant than we have ever seen them before; and Venus and Mars cast rays like those of the moon upon the water. The moon itself appears closer to the earth, and larger and brighter than it was in America. We see the Southern Cross, the stars of which are not visible from our part of the world. The Milky Way seems more milky than ever. The sea is bluer, and at night the phosphorus upon the water marks out the ship's track as a wide road of fire that loses itself now and then in the darkness, but springs alive again upon every wavelet sent out from the steamer.

The sun, so hot at midday that we dare not step out upon the deck without some sort of head covering, goes down in the west in a gorgeous splendor unknown to our land. Its dying rays color the water with bright tints of gold, which fade one into another and finally, when the sun has sunk below the horizon, change to a delicate purple, and then to a rich, dark blue, only to light up again under the bright tropical splendor of the moon and stars. When there are clouds in the sky, the sunsets are grander. As we near the coast and float into the Straits, the sun's last rays are filtered through palm trees, and the funeral song of the dying day is sung by a thousand birds, whose voices are new to our ears.

We sail along the Malay peninsula, which, though it is near one of the main ocean highways, is but little visited by travelers. This is a narrow tongue of land, extending from the Indo-Chinese peninsula eight hundred and fifty miles south, almost to the great island of Sumatra (sŏŏ-mä′trȧ). East and south of Sumatra are the islands known

Tiger.

as the East Indies. The rich soil of the peninsula is cov ered with a dense jungle of luxuriant vegetation and its shores are bordered with coconut palms. This part of Asia has also forests of the choicest hard woods.

We are now coasting the land of the Malays, the home of the tiger. The Malay peninsula has jungles filled with wild beasts, hundreds of which swim across the narrow strait to the island of Singapore every year. Tigers prowl about the villages of the mainland and even visit the cities. I was once shown the tracks of a tiger in the heart of the capital of the state of Johore (jŏ-hōr′). They were plainly outlined in the sawdust of a lumber mill, and were so fresh that they must have been made only a few hours before. The tiger had run through the mill at night, when the buzz saw was quiet, without molesting the babies and children asleep in the thatched huts hard by.

The danger from tigers and snakes is so great that the government offers rewards for killing them. The usual fee for a tiger is fifty dollars, and that for a snake ranges

from fifty cents to five dollars, according to size and kind. I once saw a man bring from the jungle into Singapore thirty-nine venomous snakes, for each of which he demanded a reward. He carried them in a bag, and when he showed them to the policeman, he put in his hand and pulled the snakes out one by one and killed them by cracking their heads against the ground. His hands were bare, but he did not seem to be afraid of the snakes. Why he was not bitten, I do not know.

The greater part of the Malay Peninsula, and also the small islands of Penang (pē-năng′) and Singapore, which lies at its southern end in the Strait of Malakka, belong to Great Britain. The mainland yields rice, coffee, pepper, spices, and most of the rubber and tin used by the world. The rubber is grown in plantations, the trees being cultivated and carefully tapped. Many of our automobile and bicycle tires are made of material grown in Malaysia.

The islands are valuable as trading centers, especially Singapore, which is often called the halfway station on the trip around the world from Australia to Europe, and from Europe to China and Japan. The great ships trading with the Far East by way of the Suez Canal stop here on their way through the Strait of Malakka, while some steamers call as they go to or come from Australia and the islands of the Dutch East Indies. Our naval vessels and transports sailing from Europe to the Philippine Islands call at Singapore, and it has ships almost every day from Ceylon, Hindustan, and Burma. The trade is so great that a fine seaport, known as Singapore City, has grown up about the chief harbor, where as our ship comes to anchor we are surrounded by vessels from all parts of the world. There are six miles of wharves and the water front is lined with quays, docks, and shipyards.

Landing, we are met by a medley of people from the countries about. Those we see on the wharves are of every shade of black, yellow, and brown. There are Malays, the brown-skinned natives of the mainland and of the East Indies; Siamese in sarongs, jackets, and caps; and yellow Burmese dressed in silks, with silk handkerchiefs wrapped around their heads. There are Chinese, rich and poor, some clad in silk and some in blue cotton; and Klings from India, as black as coal and as straight as pine trees. The Chinese and Indians do most of the work, the latter driving the bullock carts from wharf to wharf and handling the freight. There are Dyaks from Borneo, Arabs from about the Red Sea, and Persians in white caps and gowns. There are tall Sikh policemen from India, with high turbans of red; Parsis (pär′sēz) from Bombay, with hats like inverted coal scuttles. There are also many white people—English, French, Germans, and Americans—who are passing through or are engaged here in trade. The city has several hundred thousand inhabitants, of whom almost all are from Asia or the islands near by. The Chinese, more numerous than any of the others, do most of the business.

Leaving the wharves, we go to our hotel, which is situated in a beautiful park not far from the sea. There are tennis courts and golf grounds, and near by is the botanical garden, one of the finest in the world. During our stay we call upon the governor, and at his suggestion cross to the mainland and go by railroad through the states of Malaysia.

The trip is delightful, taking us through tropical plantations of bananas, coffee, and spices. We spend some time in the orchards, learning how nutmegs and cloves are raised, and watch the men at work in the vineyards from which come our white and black pepper.

Picking the berries from pepper vines. Pepper has been an export from this part of Asia for hundreds of years.

Pepper vines grow much like hops. Trained upon tree stumps or upon sticks set upright in the ground, they begin to bear in the third year after planting. A single vine often produces as much as two pounds of pepper a year. Some of them continue to yield two crops every year for many years. Black pepper and white pepper come from the same kind of berry and from the same vine. The black pepper comes from berries picked while still unripe. As they dry, they turn black. The white pepper comes from those which are left on the vines until ripe, and which when picked are a fiery-red color. When the berries are soaked in water, the red outer skin falls off and leaves the white pepper of commerce.

Tin mine. The native workmen carry out the ore in baskets.

We go to the tin mines situated on the Malay peninsula, and also in the islands of Banka (bän'kä) and Billiton (bĭl-ĭ-tŏn') near by. The tin is found in quartz as well as in the form of grains mixed with earth, which are washed out as our miners wash gold from the placer deposits of the Rockies. Some tin is found in the streams and some far below ground, the latter being carried up by Chinese, who climb ladders with baskets of tin ore on their backs. After the ore is cleaned, it is smelted in charcoal furnaces, being run off into bricks of about the size of a small loaf of bread. It now looks like silver and is ready to be shipped to the markets. Next to Malaysia, most of our tin comes from Bolivia, high up in the mountains of South America.

We meet many Malays at Singapore and find them everywhere during our travels through the Malay peninsula. They are the aborigines, or native inhabitants, of this part of Asia. They belong to the brown race, and are in color and features not unlike our Filipinos. They are straight and shapely, with small hands and feet.

On the peninsula the poorer classes wear little clothing. The smaller children go almost naked, and the men wear a baglike skirt that reaches from the waist to below the knees. When a Malay puts on his clothes, he places this skirt on the floor and steps into it. He then lifts it up to his waist and fastens it there in a knot. The dress of the women covers the whole of the body, and the richer ones have light silk shawls on their heads. The well-to-do men wear jackets and caps, but the poorer are often bare to the waist. The men are proud and haughty. They stand straight, and walk gracefully. The Malays are Mohammedans, and we see very few women of the higher classes, for their religion requires them to be kept in strict seclusion.

Malay villages are made up of one-story huts seldom more than fifteen feet square and thatched with palm leaves. They contain but little furniture, the kitchen utensils consisting of a few pots, an iron pan, and a coconut ladle. When taking their ease in their homes, the family sit on their heels or sprawl at full length. The only beds are mats spread upon the earth floor. Everyone smokes, and nearly all chew the betel.

The climate here is so hot that one needs but little clothing, and we find it best to take off everything possible. We are now near the equator, where the sun rises and sets at the same hour every day the year through; where the flowers bloom, the trees are green, and birds sing, from one year's end to another. The temperature, the year round, is like that of our hottest summer days.

In our rides over the peninsula and upon the islands we pass through tropical jungles, occasionally seeing coffee plantations and coconut groves. The green coconuts hang in great bunches from the tops of palm trees, each of which is from fifty to one hundred feet high.

The coffee estates are made up of fields of green bushes, which, if not trimmed, grow to a height of eighteen feet. When the berries on the bushes are ripe they are dark red and about the size of cherries. They look much like cherries, save that they grow close to the branches and not upon stems. Each berry contains two seeds surrounded by pulp, and these seeds are the coffee of commerce.

The Malays we see at Singapore are lazy, living from hand to mouth and working only enough to keep themselves from starving. In the interior they are more industrious, and not a few of them have plantations of coffee, cacao, pepper, and rubber. The country has greatly improved since the British took it under their protection,

Native hut in Malaysia. Cattle and other livestock are kept under the house.

Wealthy Malay woman. The Malaysians are fond of jewelry.

for they have established justice and order, and are starting schools everywhere. They have post offices and postal savings banks. They are building automobile roads and railroads and laying out towns. We find hotels at the capitals and stop at the government rest houses in the villages. Each state is ruled by a native sultan, who

governs with the advice and assistance of British officials. The country is increasing in civilization and wealth.

1. Describe your trip from Bangkok to Singapore. Along what peninsula do we steam? What wild animals inhabit it? What great islands lie at its southern end?

2. Locate Singapore. Make a trip there from New York by the Suez Canal; by the Panama Canal. How far do you travel in each voyage, and what are some of the chief ports on the way?

3. Why is Singapore an important port? Describe it.

4. Locate the Malay peninsula. Name its chief products and most important exports. Who are the Malays? In what colonies of the United States do people of the same race live?

XXXIV. BURMA

THINK of a nation whose women wear plugs as thick as your finger in the lobes of their ears, and whose men sometimes have their bodies tattooed from the waist to the knees. Let these people belong to the yellow race. Let them have olive-brown complexions, flat faces, eyes almost straight, flat noses, and lips a little thicker than ours. Let both sexes have long black hair, bound up in knots on the tops of their heads. Let the men wear turbans of bright red or yellow, and let the rest of their clothing consist of a white linen or cotton jacket reaching to the waist and a gay-colored silk or cotton tamcin, falling to the feet, bound closely about the legs and tied in front at the waist. Let the tamcin be made of a strip of cloth ten yards long and half a yard wide without buttons or strings, although it looks like a real skirt.

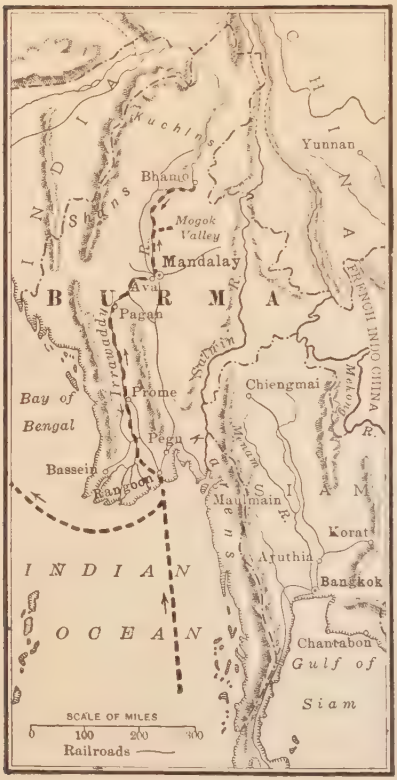
Let the women dress in much the same way, except that their skirts are shorter and their heads have no covering. Let all go barefooted. Now you have some idea of

the Burmese, among whom we find ourselves after steaming about twelve hundred miles northward from Singapore. Passing from that port through the Strait of Malakka into the Indian Ocean, we came north along the east coast of the Bay of Bengal and up the mighty Irrawaddy (ĭr-*ȧ*-wŏd′ĭ) River to the city of Rangoon (răŋ-gōōn′), which lies on one of its mouths.

Before starting out on our travels in Burma, let us stop and think where we are. We are on the other side of the world from the United States. If we could bore a hole straight through the earth from where we are now and crawl through, we would come out on the North American continent. We shall send letters home this morning. They will go first by ship to Calcutta, and thence by rail to Bombay on the opposite side of the peninsula of Hindustan. There they will be transferred to the ships that go through the Suez Canal into the Mediterranean to Brindisi, at the southern end of Italy, and thence sent overland to England, where they will reach the fast trans-Atlantic liners bound for New York. If the letters were sent the whole way by steamer they would go almost ten thousand miles before reaching New York via Suez, and a little less than nine thousand if they were sent back to Singapore and on to Seattle or San Francisco, via Yokohama, the way we have come.

Burma belongs to Great Britain. It is a part of the Indian Empire, which is ruled by a viceroy appointed by the King of Great Britain, and by lieutenant governors, each one of whom has charge of a province. At Rangoon, the capital of the province of Burma, live the lieutenant governor and his chief officials. The country, however, is more like French Indo-China or Siam than India, as it lies entirely within the Indo-Chinese peninsula.

Bird's-eye view of Rangoon. The Golden Pagoda can be seen in the background.



Our route through Burma.

Burma is more than twice the size of the United Kingdom, by which it is ruled. It is about three times the size of Kansas, and larger than France. It is a land of high mountains and great valleys, extending from where it joins the highlands of Tibet southward to the Bay of Bengal. The rivers run south, and bring down from the Himalaya Mountains such quantities of silt that the soil is extremely rich. One part of the country is rice fields; another has a vegetation so dense that nothing but an elephant can force its way through.

The chief river of Burma is the Irrawaddy, in one of whose mouths we are now. Rising in the Himalayas, it winds through gorges and hills, then enters a broad valley, and finally empties into the Bay of Bengal.

Another great river is the Salwin (säl-wēn′), which rises in Tibet north of Lassa (läs′ä) and flows with many rapids down to the sea; while a third is the Mekong, which goes south along the Burmese boundary, separates Siam from

French Indo-China, and flows out into the Pacific Ocean. We have already seen the Mekong during our travels. Owing to the heavy rainfall, all these rivers have mighty floods. Along the coast of Burma there are places where two hundred inches of rain falls every year, and here at Rangoon the average is more than twice as great as that of our Eastern states. The country is so near the equator that it has no winter. There is a rainy season from May to October, and a dry one from November to April.

The mountains of Burma contain rich deposits of gold, silver, and copper. They have mines of jade, and the most beautiful rubies to be found anywhere. The land is well populated, having many thatched villages and several large cities. Here in Rangoon, the capital and chief seaport, there are over a third of a million inhabitants, and Mandalay (măn′dȧ-lā), a night's ride by train up the Irrawaddy, has about one hundred and fifty thousand.

Leaving the steamer and taking an automobile, we ride about through Rangoon before we go to the hotel. The city has wide streets, fine public buildings, and beautiful residences, most of which are the homes of the British. It has street-car lines and electric lights, and we pass banks and large stores. We find the Secretariat, a great stone structure on the main street, swarming with clerks and officials from whom we learn much of the country and people. They tell us that Burma was for a long time governed by kings who oppressed their subjects and tortured and killed them at will. After the British took possession of the country the laws were changed, courts were established, and now everyone has almost as much liberty as we have at home. Over fifteen hundred miles of railway have been built, while other roads are planned which will enable one to go from here to China by train.

Street in Rangoon. We find automobiles here, as well as ox carts.

We find many Burmese among the clerks in the Secretariat, and learn that the people are intelligent and that they have their own language and literature. They are better educated than the Malays and Siamese. Nearly every man knows how to read and write, for every Burmese boy is expected to go to school. The native schools are often held in the Buddhist monasteries, with the priests as the teachers. While in such schools the pupils sit on the floor and study aloud, shouting the lessons they are trying to learn. The teachers, who are sober-faced men with shaved heads, dressed in long gowns, walk up and down the room with whips in their hands, keeping their eyes on the pupils. The boy who stops shouting is liable to get a cut of the whip. The studies are largely the precepts of the Buddhist religion, and many of the boys become priests after leaving school.

In addition to these native schools, the British government has established some like those we have at home. There are now more than nine thousand public schools in operation, with several hundred thousand pupils on the rolls. Here the children have the same studies as ours. The boys are interested in athletics, and play football and cricket. There are also girls' schools run by the government, although all the natives do not approve of them. In the past these people did not think that women should be educated. According to their religion, women were not of much account in comparison with men.

The Burmese are Buddhists. We shall frequently meet bareheaded monks clad in yellow robes walking about with begging bowls in their hands. The whole country is dotted with temples and pagodas, and there are monasteries everywhere. It is one of their religious beliefs that every man or boy must become a monk before his soul

can be born; so a boy is supposed to enter a monastery for a time before becoming a man. While he is in the monastery, he lays aside his good clothes, dresses in a single sheet of yellow cotton, works in the monastery, and goes forth to beg. He is supported by the gifts of the people, and no matter how rich his family is, he lives on the rice and other things which are given to him in the way of charity. The boy at first acts as a servant, or chela (chā′lä), much as did "Kim" in Rudyard Kipling's delightful story of that name, but later on he is given more important duties. While in the monastery he is taught the principles of the Buddhist faith, and is urged to spend his life doing good. After a time he may leave the priesthood and go back to his home, or he may remain and devote his life to his religion.

Suppose we pay a visit to the Golden Pagoda at Rangoon. It stands upon the site of a temple erected here more than five hundred years before Christ was born. It is a great gilded tower, rising in mighty rings from an immense stone platform, and growing smaller as it goes upward, until it ends at last in a golden spire which seems almost to pierce the sky. Higher than any stone structure in America, except the Monument at Washington, the whole of it blazes in the sunlight as though it were solid gold. Upon its top is a golden umbrella studded with jewels. The tower is made of brick and mortar, but its outside has been plated and gilded again and again, so that there is an enormous amount of gold on it.

During the last century one of the kings of Burma vowed that he would give his own weight in gold to this pagoda. The vow cost him forty-five thousand dollars' worth of gold leaf, for it took just that much, it is said, to equal his weight. The Burmese tell us that the Golden

Pagoda is built above a casket containing eight hairs from the head of Buddha, which fact makes the place holy.

The Golden Pagoda.

About the Golden Pagoda we see dozens of women clad in bright silk gowns and white silk jackets, kneeling and praying. Upon the platform are offerings of rice and flowers, while the air is filled with the perfume of the roses which worshipers have laid at its base. Men are

bowing before it; and, as we look, boys come up, kneel down, hold up their hands, and pray under the blazing sun. We can see that they believe in their religion.

XXXV. THE BURMESE AT HOME

WE shall go out into the country this morning and see something of the Burmese at home. The people live largely in villages, each town being ruled by its headmen or elders, appointed by the government with the consent of the people. The houses are small, in most places little more than sheds set upon piles on account of the great rains. The huts have walls of plaited or woven bamboo, and the roofs are of palm leaves pinned or sewn to rafters of cane. Very few of them have more than one story, and they are usually built upon a platform so high above the ground that one can walk under it without stooping. The cattle are sometimes kept in the space below the house. One has to climb a ladder or steps to reach the first floor.

The people have but little furniture. They sit, eat, and sleep on the floor, so that chairs, tables, and beds are not needed. They sometimes use sleeping mats, resting their heads upon pillows, or rather pillow-frames of cane, each about the size and shape of a small loaf of bread. Every house has a little plot of land at the back, containing some fruit trees, vegetables, and flowers. At the front it faces the street, which is usually lined with trees bearing tropical fruits. Along the roadsides near the villages are shade trees with platforms below them where travelers may rest or the village headmen discuss local affairs.

Burmese mother and child. The girl's dress and jewelry are just like her mother's.

Much of the cooking is done out of doors on fires built on the ground. The cooking utensils consist of little more than two or three earthen pots. The chief food is rice, a huge platter of which is served at each meal. Besides, there is a bowl of curry, a gravylike mixture made of fish and so seasoned with pepper that it is exceedingly hot. There are also other relishes, among them a bad-smelling fish paste made by burying raw fish in the sea sand until it is rotten. The rice dish is placed on the floor and the family sit about it, each member having two bowls, a small one for curry and a large one for rice. There are no knives or forks. Everyone helps himself, putting his fingers into his rice bowl, taking up all he can squeeze in his hand, and then crowding it into his mouth.

At the close of the meal each member of the family must wash his own dishes. No drinking is done during meals, but at the end each goes to the water jar to rinse out his mouth. All take a smoke after eating, the grandfather and grandmother, parents and children, puffing together. Sometimes one cigar suffices for the whole family, the members passing it from one to another and smoking by turns.

The Burmese, who are kind and polite, make us feel at home. The boys are full of fun, and show us their games. The girls, who are intelligent, talk with us more freely than any other girls we have met in Asia. We learn that the women have more rights than any other women except those of the United States or Europe. They have equal rights in property with their husbands, and generally carry the family purse.

A large part of the business of Burma is done by the women. The native stores are collected together in bazaars, each consisting of a large number of little shops under one

Boys playing football. The ball is kicked into the air by the feet and knees, but must not be touched by the hands.

roof. These shops are small rooms opening upon the streets or passages which run through the bazaar. In a room walled with goods, the woman merchant sits on the floor as she shows us her wares. We stand in the passage and bargain as to the price we will pay. They sell silks, cottons, cigars, jewelry, and many other articles. Very few can read or write, but all are able to count quickly.

Girls often go into the bazaars and remain there selling goods until they get husbands. In Burma love-making is

A Burmese boy considers it an honor to be covered with tattooing.

carried on in somewhat the same way as with us. The Burmese husband has, as a rule, but one wife, although more are permitted. Parents usually arrange marriages without asking the consent of the son or daughter who is to be married; but engagements are sometimes made by the young people themselves and elopements are common.

The marriage ceremony is simple. The bride and groom eat rice together out of one bowl in the presence of friends, promising before them to live together henceforth as man and wife. The Burmese believe that women should marry, as will be seen from one of their proverbs, which reads as follows:

"Monks are beautiful when they are lean, four-footed animals when they are fat, men when they are learned, and women when they are married."

As we go on with our travels through Burma, we find that the people have many curious customs. For instance, nearly every boy has his legs tattooed from the waist to the knees. As he looks upon this coat of tattooing as a sign of manhood, he gladly submits to the pain he must undergo to secure it. The work is done by a professional tattooer, who uses a steel pricker with four split points as sharp as needles at its end. These points are dipped into ink and then thrust into the skin, carrying the ink under the surface. The tattooer takes up the skin in his hand and pinches it, while he thus pierces it with the inked needles which are to discolor it forever. In this way he makes pictures all over the boy's thighs, so that when the tattooing is completed he looks as though he were dressed in kid tights covered with red and blue serpents, tigers, ogres, and demons. Such tattooing is not done all at once, but figure by figure, as the boy can stand the pain. It takes some years to give him a full coat.

The Burmese are superstitious and believe that certain tattooed figures will ward off diseases. One, for instance, is a protection against snake bites, and another will keep one from drowning. A third figure is especially prized by the schoolboy; for it prevents, so they tell us, his feeling the whip when he is punished.

We are also struck by the plugs of gold, silver, or glass the girls wear in their ears, which they prize quite as much as the boys do their coats of tattooing. A girl is not considered a woman until after her ears have been pierced, so she is anxious to have her first ear plugs, notwithstanding the pain that comes from making the holes. The work begins when the girl is twelve or thirteen, an occasion celebrated by a feast to which all the friends and relatives are invited. When the party has assembled, the girl lies down on a mat and a professional ear borer thrusts a gold needle through the lobe of each of her ears, twisting it around so that it forms a ring, which is left in the ear. As the needle goes through, the girl screams with pain, but her cries are drowned by the music of a band playing outside the house.

It takes the ear some time to heal, and then the process of making the holes larger begins. The needle is now taken out and a fine gold plate, tightly rolled up, is inserted. This plate is gradually opened from week to week until the hole has been stretched to the size of your little finger, or larger.

The poor, who cannot afford gold, use silver needles for piercing and stems of grass for enlarging the lobes, inserting one stem after another until they have a bunch of grass as big around as your thumb in each ear.

After a long time, when the holes have become large enough, the ear plugs—hollow pieces of gold or some

cheaper material are put in; the plugs being as costly as the girl can afford. Some are set with jewels, some are of glass, others of amber. The holes thus made are so large that a man could easily put his thumb through them, and a common sight is a woman carrying a big cigar in her ear.

XXXVI. ELEPHANTS AT WORK

ONE of the great sights of Burma is seeing the elephants at work. They are among the most intelligent animals in the world. There is no land that has more elephants and larger elephants than Burma. Let us visit the lumberyards at Rangoon. There we shall find these beasts carrying great logs and moving piles of lumber, obeying the orders of their masters almost as if they were human and could understand what is said.

There is one carrying a teak log on his tusks. The elephant has thrown his trunk over the top of the log and balances his long, heavy burden in the air as he moves slowly onward, picking his way in and out through the piles of lumber. His master is a dark-skinned, half-naked man, dressed in a white waistcloth and jacket, with a red handkerchief tied about his black head. He sits on the animal's neck just back of the great flapping ears, with his bare legs hanging down on each side. He speaks to the elephant now and then, and when it does not obey, thrusts into its skin the point of a short brass hook fastened to the end of the stick in his hand.

We follow the elephant to see what he will do with the log. He carries it to the sawmill on the opposite side of the yard where there is a truck on wheels, so placed that

the logs upon it can be moved against the circular saw by which they are to be divided into boards. The elephant takes his log to this truck, lays it lengthwise upon the truck, and with his tusks and trunk moves it into just the proper place for the saw.

There is another elephant piling logs. He has laid the logs regularly, one on top of another, as evenly as though he had calculated their order by measure. See how he raises that log to carry it to the pile! He goes to the center of the log and gets down on his knees before it. Next he thrusts his tusks under it, then, throwing his trunk over the top, rises slowly upward with his heavy burden nicely balanced, and thus takes it to the pile. At first he can roll the log upon the pile without trouble, but as this becomes higher he has to lift the log to the top. To accomplish this he stands it upon end, propping it against the pile; then, placing his tusks under the lower end of the log, he slides it up off the ground, and with a jerk sends it flying into its place.

There goes a bell! It is noon, and that is the signal for the men in the yard to stop work for dinner. We find that the elephants stop too, not waiting for orders from their drivers. As the sound of the bell first falls on their ears, they drop their loads and bolt for the feeding shed. Their drivers tell us that they cannot make the animals work after the bell has been rung. They say also that a working elephant must be fed regularly and have his bath twice a day. He becomes restless if anything gets under the cloth upon his back, and will tremble at the sight of a mouse, for fear it may run up his trunk.

At one of the yards we see the men washing the beasts. The elephants sit down while buckets of water are thrown over them and their masters scrub them with rough brushes.

This elephant is lying down in the water to enjoy a thorough scrubbing.

As the water is dashed upon them they wag their tails, flap their ears, and grunt for joy.

As we leave the lumberyards we throw some silver to the rider of one of the elephants. The man catches it and speaks to his elephant. The great beast throws its trunk high up into the air and gives us a salute just as though he knew we had been kind to his master.

Elephants are used in clearing the teak forests and in getting the timber out to the streams. They not only carry the logs to the rivers but aid in shoving them about through the water. Wading or swimming, according to the depth of the river, they tow the logs this way and that. When the rafts have reached port or are piled up, they break the booms by pushing out the key log, and they will take the timbers from the river and load them on the cars that are to carry them to the mills.

In some places where the elephants labor together there are boss elephants which keep the other beasts at work, pounding them with their trunks when they lag. In the lumberyards each elephant has his own peculiar job. One, for example, carries the hay for the stables and assists in mixing the bran, molasses, and other food that forms the rations of the elephants.

These huge beasts are used also for farming. They drag the heavy plows which break up the matted soil of the jungle. The elephant plow is a two-wheeled implement with a heavy share fastened to it. One man holds the handles of the plow and presses the share into the earth, another sits on the neck of the elephant, and a third, walking by his side, helps direct the huge animal.

Traveling in Upper Burma is done upon elephants, for they are the only beasts on which we can make our way through the jungle. They can pull the branches aside

Elephants dragging logs out of a forest.

with their tusks and push their way through the thickest of the tropical vegetation. They can swim rivers and climb hills; and it is said that when they come to very steep places, they sometimes sit down on their hind legs and slide down in preference to risking a fall by walking. A good elephant often sells for more than one thousand dollars.

XXXVII. RICE, TEAKWOOD, AND RUBIES

WE are on the Irrawaddy River this morning. We have taken a comfortable steamer and are traveling northward through the interior of Burma. As we sit on the deck we can see the rich lands on both sides of the river. We ride for miles through broad fields of rice, the great crop of the country. The people depend upon the rice crop, being prosperous or the reverse as the rice grows well or ill. It brings in more money than anything else, the annual export amounting to thousands of millions of pounds. Indeed Burma sells enough rice to India, Japan, and other countries every year to give every man, woman, and child upon earth all he could eat in one day and still leave hundreds of millions of pounds.

The valley of the Irrawaddy is made up largely of rice lands. We see men here and there plowing, driving water buffaloes through the mud, and turning up furrows with plows of wood, which in some places hardly scratch the soil. In other places the children are driving buffaloes and oxen over the wet lands, which are thus broken up by their hoofs. A little later logs and brush will be dragged over the ground to smooth it, for the British are teaching the natives how to get more out of their farms.

Farm cart in Burma. It is roughly made of wood and drawn by water buffaloes.

Rice is grown in about the same way as in Japan. The crop must have plenty of water. In some parts of the country the rains are sufficient, but in others the lands are irrigated, the fields being flooded from time to time. As the grain matures, the water is taken off. The rice soon turns from green to yellow, until each field looks not unlike one of ripe wheat or oats.

The rice is harvested with sickles, little more than the heads being cut off. It is threshed by laying it on a hard piece of ground and driving bullocks over it. After that it is taken to the rivers and shipped to Rangoon or other ports to be sent to all parts of the world.

A grain of rice when it leaves the farmer is much like a grain of wheat with the husk on. This husk must be taken off before the rice can be used, and Burma has great steam mills for this purpose which employ thousands of men. They are not unlike the huge flour mills of America.

Suppose we visit one of the mills and see how rice cleaning is done. There are some very large ones on the edge of Rangoon. The grain comes down in boats, and is carried in baskets on the backs and shoulders of girls up to the mills. Here it is passed between one pair of millstones after another, each pair tearing off a bit of the husk, until at last we have the white grains we use for eating.

After the husk is removed, the rice is smoothed for the market. It is strange to think of polishing grain as we polish silver spoons, but that is what is done with rice. The husked grains are thrown by machinery against rollers covered with sheepskin as soft as the inside of a kid glove. They are brought in contact with these rollers again and again, until they are as white as freshly slaked lime, and perfectly smooth.

On our way up the river we now and then pass small

cotton plantations, and here and there find the people rearing the silkworms from which come the beautiful silks so commonly worn by the Burmese. We stop at the oil fields, which are now producing a great deal of petroleum. There are great derricks over the wells, and the scenes remind us of our oil fields of the Southwest.

Traveling on up the Irrawaddy, at about ninety miles north of Mandalay we leave the river and make an excursion to the Mogok Valley, whence come the most beautiful rubies known to the world. A fine ruby is even more valuable than a diamond of the same weight. A ruby which weighed eleven carats was recently sold in London for thirty-five thousand dollars, whereas a diamond of that size would not bring more than one fifth that amount.

Rubies are found in a layer of gravel or sand some distance below the earth's surface. The clay overhead is dug away, and the gravel taken out and washed in machines that churn out the dirt and sand and leave only the pebbles, among which are the rubies. These pebbles are passed through revolving screens, which sort the stones into grades. The different piles are then looked over and the rubies picked out. The smaller stones are given to the natives to care for, but the larger ones are handled only by foreigners. In picking out the stones, they make gravity do part of the work. The rubies are heavier than the other pebbles, and as the gravel is shaken up in sieves, the rubies fall to the bottom. The sieves are then turned upside down, making piles of stones with the red rubies on top. After they have been sorted according to their quality and size, they are shipped off to London for sale. There are about fourteen different grades, the best being of the clear bright hue known as pigeon blood. One of the largest pigeon-blood rubies ever discovered weighed fifty

Searching the gravel for rubies.

carats, although there is another, from Tibet, not of the first quality, which weighed two thousand carats. The fine pigeon-blood gem is owned by a native ruler of India.

Going back to the river, we proceed northward to Bhamo (bä-mō′), a thriving city on the trade route to China, the borders of which are not far off. The scenery on the upper part of the Irrawaddy is noted for its magnificence. The river, clear and deep, winds between high cliffs covered with forests.

Burma is noted for its forests. Many of the trees are of hard wood. The wood is sometimes so heavy that it will not float, so it is carried down to the ports on rafts of bamboo. This is so of the teakwood, for which Burma is especially noted, exporting vast quantities each year. Teak is valuable for shipbuilding, for furniture, and for other purposes. The beautiful teak tree rises above all the trees of the Indian forests. It usually grows in clumps. When cut it is often dragged by elephants to the streams. The wood is easily worked, and is not liable to the attacks of insects. It is a little like coarse mahogany, taking a fine finish.

In the northern part of the country, many strange men and women come down to our steamer. They wear but little clothing, although they are almost loaded with jewelry of brass and other metals. Among them are the Shans (shänz), Kachins (kŭch′ĭnz), and Chins, some of whom are quite savage, and all of whom are much less civilized than the Burmese. A few of the tribes go almost naked, and some worship spirits.

The Shans are especially noted for their fine coats of tattooing. They are muscular, well-formed, and about an inch taller than the Burmese. They wear trousers and jackets, and many have blue cotton headdresses.

The Karens (kȧ-rānz′), another large tribe, some of whom are also found in Lower Burma, are more like the Chinese, although they dress like the Burmese. They are tattooed, many of the men bearing the figure of the rising sun pricked in with red ink on the small of their backs. Numbers of the Karens have been converted to Christianity.

Leaving Bhamo, we sail back down the Irrawaddy River to Mandalay, the capital of the country before the British conquered Burma and changed the seat of government to Rangoon. Mandalay, with its one hundred and fifty thousand inhabitants, is still a place of considerable business importance. It has hundreds of pagodas, in one of which is a bell weighing ninety tons.

We spend some time shopping in the city and making excursions out into the country near by, though we do not stay long. We have discovered that Farther India is a little world in itself, and we long for the still stranger things we are to find in India proper. Therefore we return to Rangoon, where we find a steamer about to go to Calcutta, and taking passage, are soon far out on the Bay of Bengal (bĕn-gôl′). After we have steamed for several days in a northwesterly direction, we awake one morning to find our ship surrounded by the muddy waters brought down by the Ganges. We sail through these into the Hugli River, which forms one of the mouths of the Ganges, and after a few hours come to anchor under the spires and towers of the great city of Calcutta.

1. Locate Burma. Suppose a hole could be cut through the globe from east to west, beginning at Rangoon, where would it come out on our side of the earth? When it is midnight there, what time is it here?

2. To what great peninsula does Burma belong? What countries lie on the north? On the east? What great bay on the west? Compare the size of Burma with an American state; with two

countries of Europe. What sort of surface has Burma? Name its three principal rivers. Where do they rise? Where are their mouths? Of what advantages are they to the country?

3. To what great power does Burma belong? How is it governed? Of what advantage is it to a great country of Europe to have a dependency so far away?

4. To what race do the Burmese belong? What other peoples of this race have we already met in our travels? Make a visit to a Burmese house and tell how the people live. Visit the bazaars and describe the stores.

5. What is the principal religion of Burma? In what other countries have we found it? Describe the Golden Pagoda.

6. What are the chief products of Burma? How is rice grown? Compare the Burmese rice fields with those of the United States (see Carpenter's "North America"); with those of Japan.

7. What is the most valuable timber found in the forest? How is it got out? Make a visit to a lumberyard at Rangoon and describe the elephants at work.

8. What precious stone is found here and how is it mined?

9. What are the two chief cities of Burma? Compare their size with that of your town. Take a trip from Seattle to the chief port and describe the route. Follow a letter from there to New York. How long is it on the way?

XXXVIII. INDIA

LANDING in Calcutta, we are in the great world of India, which contains almost one fifth of the whole human race. Its inhabitants number more than three hundred millions, or more than one third of all Asia, and they are almost three times as many as we have in the United States. The land is one of many races, colors, and languages. Some of its people are as yellow as the Chinese, some are as brown as the Malayans, some as black as the Africans, and many have skins as fair as our own.

Street in Madura, in southern India. The building that towers above the palm trees is a Hindu temple.

We shall need guides almost everywhere in our travels, and shall carry with us native servants who speak several languages. As the Indians speak one hundred and forty-seven different languages, the many peoples have difficulty in understanding one another. There is one tongue spoken by eighty-two millions, another by forty-eight millions, while there are thirteen other tongues each used by more than three millions.

Such a vast population must have enormous quantities of goods of one kind or another for their food, shelter, and clothing. They must have tools for their farmers and mechanics, and machinery for their factories. They must, in short, have many wants that the people of the United States can supply, and as we travel among them we shall be always on the lookout to see how we might increase their trade with our country. The people, being industrious, already raise and make many things that they sell to us. India is one of the great cotton lands of the world, as well as one of the chief wheat-raising countries. In these two products they compete strongly with us. At the same time, we buy tea, jute, and many kinds of Indian goods, so we ought to learn all about them to know what goods we can send back in exchange.

But before we go farther, let us look at the land in which these people live. It is known as the peninsula of Hindustan, and is the largest and most important of the three great peninsulas extending from southern Asia down into the Indian Ocean. This great region is almost half as large as the United States, and quite as varied in its scenery and character. From north to south it is as long as from the middle of Hudson Bay to the Gulf of Mexico, and from east to west almost as wide as from Cape Cod to Great Salt Lake. The country is the shape of a triangle, the base

INDIA
AFGHANISTAN AND
BALUCHISTAN
SCALE OF MILES
0 200 400 600 800 1000
Longitude East from Greenwich
PERSIA
AFGHANISTAN
BALUCHISTAN
ARABIA
INDIA
CHINESE TURKESTAN
TIBET
CEYLON
Hindu Kush Mts.
Himalaya Mts.
Karakoram Mts.
Kuenlun
Suleiman Mts.
Khotan
Peshawur
Srinagar
KASHMIR
Amritsar
Lahore
Simla
DELHI
Meerut
Bareilly
Lucknow
Cawnpore
Allahabad
Benares
Patna
Lassa
Jaipur
RAJPUTANA
Hyderabad
Karachi
Kandahar
Herat
KABUL
Quetta
KHELAT
Bela
MASKAT
Ras el Had
Ahmadabad
Baroda
Surat
Daman (Port.)
Bombay
Nagpur
Jaipur
Hyderabad
Yanaon (Fr.)
Madras
Pondicherry (Fr.)
Karikal (Fr.)
Mysore
Trivimopoli
Calicut
Goa (Port.)
Western Ghats
Eastern Ghats
Chandarnagar
Calcutta
Mandalay
Rangoon
Bhamo
Hue
Saigon
Puum Penh
Gulf of Siam
C. Camboja
Khiva
Bokhara
Yarkand
Khotan
Kuenlun
Changtho
Lassa
Yunnan
Assam
Bhutan
Darjeeling
Sikkim
Nepaul
Tibet
China
Persia
Arabia
India
Ispahan
Kerman
Baluchistan
Karachi
Bombay
Madras
Ceylon
Colombo
C. Comorin
Gulf of Manaar
Maldive Is.
Laccadive Is.
Sokotra I.
Persian Gulf
Gulf of Oman
Arabian Sea
Bay of Bengal
Indus R.
Ganges R.
Brahmaputra R.
Irrawaddy R.
Mekong R.
Menam R.
Salween R.
Godavari R.
Narbada R.
Tapti R.
Mahanadi R.
Kistna R.
Cauvery R.
Jumna R.
Sutlej R.
Chenab R.
Jhelum R.
Ravee R.
Beas R.
Helmund R.
Tigris R.
Euphrates R.
Oxus R.
Jaxartes R.
Aral Sea
Caspian Sea
Black Sea
Mediterranean Sea
Red Sea
Persian Gulf
Gulf of Oman
Arabian Sea
Bay of Bengal
Gulf of Siam
Gulf of Manaar
Mt. Everest
Mt. Elbruz
Mt. Ararat
Mt. Demavend
Mt. Sinai
Mt. Horeb
Mt. Hermon
Mt. Lebanon
Mt. Carmel
Mt. Tabor
Mt. Gilboa
Mt. Ebal
Mt. Gerizim
Mt. Olivet
Mt. Zion
Mt. Moriah
Mt. Nebo
Mt. Pisgah
Mt. Hor
Mt. Seir
Mt. Sinai
Mt. Horeb
Mt. Hermon
Mt. Lebanon
Mt. Carmel
Mt. Tabor
Mt. Gilboa
Mt. Ebal
Mt. Gerizim
Mt. Olivet
Mt. Zion
Mt. Moriah
Mt. Nebo
Mt. Pisgah
Mt. Hor
Mt. Seir
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of which is the Himalaya Mountains, and whose sharp apex reaches almost to the equator.

The surface and location of India is such that it has almost every kind of soil and all kinds of climate. It extends from the temperate zone into the tropics. The Himalayas, which border it on the north, have peaks hidden in the perpetual snow, while the icy wastes on the top of Mount Everest are two miles higher than any part of North America except Mount McKinley. The Himalayas are the highest mountains on earth; so high that the climate of their peaks corresponds to that of the frigid zone. Up to a mile above the sea the Himalayas are inhabited, much of the land being irrigated.

At the foot of these mountains is a plain about fifteen hundred miles long and two hundred miles wide. This plain is composed of the river valleys of the Ganges and Brahmaputra (brä-mȧ-pōō′trȧ), which are so low as to be intensely tropical, and of a similar low region, the valley of the Indus, at the western side of the country. The plain is the largest sheet of level cultivated land in the world. It has not a stone or pebble of any kind. The soil is sand and silt, and wells which have been bored show that this soil extends to a depth below sea level of about one thousand feet, which is equal to the height of the Eiffel Tower at Paris. South of the plain the land rises into an enormous plateau known as the Dekkan (dĕk′ăn), which comprises the whole central and southern part of the peninsula, except for the narrow strip of low plain that runs around the coast.

In general, the seasons in India are three, the hot, the rainy, and the cool. The hot season lasts through March, April, and May, during which time in the lowlands the heat is terrific and no rain falls. The rains begin early in June, when the southwest monsoon rushes in from the Indian

Ocean; they last through the summer and even into October. Then comes the cool weather, which continues from November to February, inclusive. In this winter season it is not cold on the plains, but much like our moderate weather in summer.

Indian boys and girls wear but little clothing.

The rainfall varies from place to place. India is one of the wettest of lands and also one of the driest. Below the steep western coast range so much rain falls in one year that if it all remained where it fell, the whole country would be covered by a lake more than twelve feet deep, while just north of the Bay of Bengal is a region which has the heaviest rains of the world, nearly fifty feet of water falling in one year. Going from east to west the rainfall decreases until in the lower valley of the Indus we find the rainless desert of Sind, which is irrigated from the river by a network of canals like that of Egypt.

India is a world in itself as regards its vegetation. It has all the trees and plants of the tropics, and of the temperate and frigid zones. There are palms in the lowlands; and pines, cedars, and oaks high up in the mountains. The country grows all sorts of crops, from wheat,

barley, and millet to rice, cotton, and sugar; and it has animals of every climate, from the elephants and tigers which roam through the jungles to the wild goats and mountain sheep on the borders of Tibet.

XXXIX. HOW INDIA IS GOVERNED

BEFORE beginning our exploration of India, we should know a little about its history and how the people are governed. The King of Great Britain has the title Emperor of India and a great part of this country, situated in southern Asia, thousands of miles from London, is ruled by a Viceroy who represents the king. The Viceroy is appointed by the British government and acts under the authority of a cabinet minister, the Secretary of State for India, whose office is in London. Besides the Viceroy the government of India consists of a Council of State and a Legislative Assembly; about two thirds of the members of the latter body are elected by the people of India, and there are many native Indian officials. The Viceroy has his winter headquarters at Delhi, one of the most interesting cities of north-central India, situated just about halfway between Calcutta and Bombay. During the heat of summer he goes to Simla, in the mountains.

For many years the capital of India was here at Calcutta, but in 1912 it was changed to Delhi, which is much nearer the center of population. We shall find there great buildings put up for the government, including the palace of the Viceroy, and the structures in which the Council of State, the Legislative Assembly, and thousands of clerks have their offices.

Is it not strange that a country one half the size of the United States, having three times as many people as we have, should be controlled by a small island kingdom with less than one sixth of India's population? Yes, and especially so when that kingdom and people are as far from India as one fourth of the distance around the globe.

The story of how the English got control of India is wrapped up in a pinch of pepper. Wars are made, and empires rise and fall on account of trade. The chief reason why the English continue to keep India to-day is because of the market its vast population offers for the manufactures of Great Britain, and because of the food and other goods that India sends to the United Kingdom.

But to return to the pinch of pepper. During the days of Queen Elizabeth one of the articles from the East most desired in Europe was pepper, which for a long time had a good sale at seventy-five cents a pound. The chief ships then trading between Europe and India belonged to the Dutch, who had most of the East Indian trade. They were making fair profit on the pepper they brought, but they thought no one else could bring in the goods and so they doubled the price. The English merchants protested, but the Dutch refused to make any reduction. Thereupon the English merchants formed a company to build ships of their own, and to send them out to India to bring back pepper and other goods. That was the famous East India Company, which gradually drove out the Dutch, and eventually acquired most of Hindustan, subduing the many peoples and bringing them under its rule. Later on, the British government took over the authority of the company, and since then it has been the real ruler of India. This has been possible because of the many different nations living in Hindustan. They have always

been so quarrelsome with one another, that they have not been able to unite in any way to form a great army and to establish a government of their own to rule the people with justice and equity.

The Indian army is made up mostly of native soldiers, with many British officers. The soldiers are of half a dozen different races, coming from such of the nations as are noted for their bravery and military skill. Many of them ride upon camels and elephants. They are skillful fighters on horseback and on foot. They fight for England not only in India but also in other countries, and during the World War furnished more than one million troops to the support of the Allies against Germany. Some of these troops fought in France, and others in Turkey, Egypt, and East Africa.

British India is divided into provinces or states, each of which has a governor appointed by the British, and a Legislative Council, some members of which are elected by the people. There are also native states ruled by native princes, or rajahs, with British advisers to tell them just how to govern.

The British in many ways have greatly improved India. When they came here, Hindustan was inhabited by nations warring upon one another. The taxes were enormous, the princes oppressed their subjects, and life and property were very unsafe. The farming methods were so bad that there were frequent famines, which killed millions of people. There were no public roads to speak of, and some of the natives were low in the scale of civilization.

To-day we find such good order kept everywhere that we can travel as safely through Hindustan as in any part of the United States. There are good wagon roads, and railroads traverse the most thickly populated parts of the

Indian camel soldier. Many of these men aided the Allies in the World War.

peninsula. The people have been taught better farming. They now trade with one another without fear of robbery, and have a vast commerce with other nations. At the time the British took control of the country, its foreign trade was not more than five million dollars a year. It now annually amounts to over nine hundred million dollars each, for exports and imports, and it grows more and more as time goes on. The people now pay smaller taxes than those of any other great land. Their tax per head is about a thirteenth of ours, and only a twentieth of that of the French or the English.

The British have given the Indians a good postal and telegraph system. We shall be able to mail letters in the smallest villages, and shall meet postmen going about upon bicycles delivering the mails. We can send telegrams at low rates to any part of India, while it will not cost very much for us to cable to England, or even to New York.

As we look at the telegraph poles, we see that they are made of iron. It seems to us that wood would be cheaper, so we ask why this is. It is because of the white ant, found in many parts of Hindustan, which eats up anything wooden. A swarm of them would chew up several wooden telegraph poles in a night.

Suppose we take a few excursions over the country. How shall we travel? We could use camels or elephants, for there are many in Hindustan; or we might go on the rivers, as we did in some of our journeys through China. Any of these ways would be pleasant for a short time, but in the study of a country so large we shall need the most rapid transportation we can possibly get. We shall therefore go by the railroad or upon motor cars. There are many thousand miles of railroads in India. The country has more than any other in Asia, while its railroad

mileage is surpassed by only four other countries of the whole world. It has about one seventh as many miles of track as we have. The railroads of India are well built and well managed, and carry hundreds of millions of passengers each year. The cars are much like ours, except that in most of them the seats are long benches running lengthwise, instead of across the car on each side of a central aisle, as with us. Other cars have compartments. On the express trains some have electric fans, electric lights, and bells. At one end of our car is a bathroom with a tub sunk in the floor, so that one can have a bath as one goes flying over the country at twenty-five or thirty miles an hour.

Can we travel at night? Yes, there are some sleeping cars; but upon many trains we shall have to carry our bedding. In such cases we must make a rush on entering the train. As the man who first gets his bedding down on a bench has the right to it, if we come in too late we may be crowded to the ends of the benches and have to sleep as we can.

The cars are of three classes—first, second, and third. Those of the first and second classes are used chiefly by foreigners or well-to-do natives. The third class is reserved for the common people, who are packed in so tightly that it is almost impossible for them to move. They pay less than half a cent per mile, and the first-class fares are cheaper than ours. The conductors are usually natives, tall, dark-faced men, wearing turbans and uniforms. They speak English and are polite to all foreigners.

We are amused at the queer things we see on the freight cars. Here is one loaded with camels, while in another a baby elephant is shut off in a pen from the rest of the freight. When the brakeman tells us that elephant calves

The great railway station at Bombay is one of the finest in the world.

are charged for at the rate of six cents a mile, we wonder what may be the rate for a camel or a donkey.

In the baggage cars are compartments for cats, monkeys, rabbits, guinea pigs, and dogs. All these animals are classed as dogs and paid for at the dog rate, no one being allowed to carry anything of the dog class into the passenger cars. Not long ago a woman appeared at the depot with a turtle in her hand. She was about to take the train when the Hindu conductor stopped her. She asked him why she could not take her pet into the car. He thought for a time, and then replied in his ungrammatical English:

"Yes, Missy can take. Cats is dogs, and monkeys is dogs; but turtles is fish, and there is no rule against fish."

1. Suppose you were ordered to leave home to-morrow and go to Calcutta; over what routes could you go? Suppose the order read to start from New York and go east. Suppose it read to start from San Francisco or Seattle and go west. Through what waters would you travel in each voyage? At fifteen miles an hour, how long would each voyage take?

2. Make a sketch of Hindustan, including an outline of the great mountains on the north, and the large island at the south, naming the waters on the south, east, and west. Locate the ports of Calcutta, Madras, and Bombay, and the cities of Delhi, Agra, Lucknow, and Benares. Color the river valleys blue to show the lowlands, and the Dekkan plateau and foothills of the Himalayas brown to show they are high.

3. Compare India in size with the United States; with Asia; with your own state. What parts of it have a mild climate? Why? Name the seasons and describe the rainfall.

4. How many people are there in India? Compare its population with that of Asia; the United States; the world.

5. Why must we have guides to travel in India?

6. Why is India of especial interest to us? With what products does our country compete with it in the world's market?

7. What great European power controls India? How did it

acquire possession of the country? How does it rule the people? Mention some of the reforms and improvements it has made.

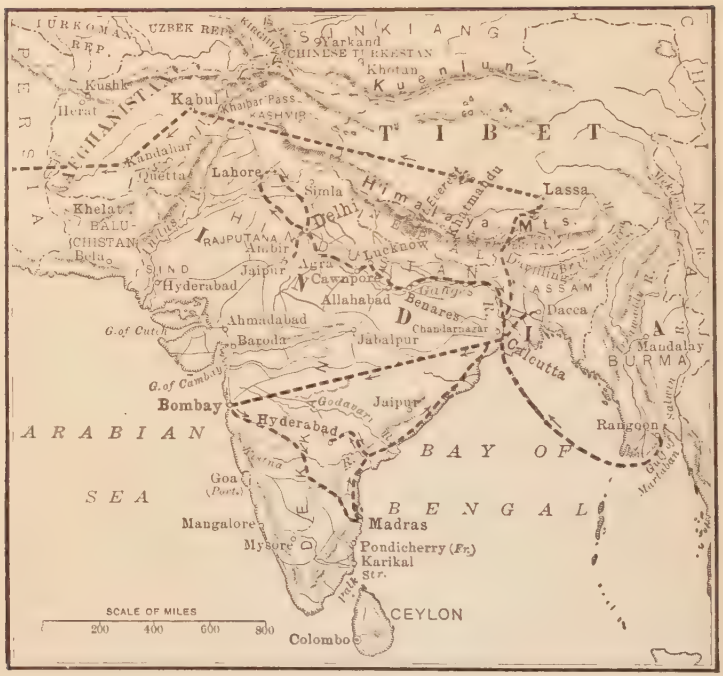
8. Take a trip on an Indian railway train and compare it with the cars of the United States. Compare the railway mileage of India with that of our country.

XL. THE CITIES OF INDIA

TO-DAY we are to see something of the cities of India. There are many large ones, some of them commercial and manufacturing centers. Calcutta, Madras (*mȧ*-drȧs′), and Bombay are all great seaports, at which hundreds of steamers call every year; and Hyderabad (hī-dēr-ä-bäd′), Lucknow (lŭk′-nou), Benares (bĕn-ä′rĕz), Allahabad (ăl-*ȧ*-hä-bäd′), Delhi (dĕl′ē), and Lahore (l*ȧ*-hōr′) are important trading places of the interior, where vast numbers of workmen are making things for the markets at home and abroad.

Many of these cities not only are great hives of modern industry but also are associated with the fierce wars and splendid empires of Indian history. Often their story extends so far back into the past that we are not sure where history ends and legend begins, and the oldest cities of America and even of Europe seem modern when compared with some of them. Lucknow is famous for its defense during the Indian Mutiny, in 1857. Allahabad, a sacred city of the Hindus, who gather there at a yearly festival, has a great fort built hundreds of years ago by a Mohammedan conqueror. Delhi and Lahore, each at different times the capital of the Mohammedan emperors of India, have many buildings which recall the power and magnificence of these old-time rulers.

Calcutta is two thirds the size of Philadelphia, Bombay has more people than Detroit, and Madras is larger than



Our line of travel through India.

Buffalo. A great many other Indian cities have a population of fifty thousand or more, and there are more than two thousand towns.

Besides the industrial workers of the cities and towns, there are many farmers in India. These live in villages, and not on the lands they cultivate, as with us. There are more than seven hundred and fifty thousand such villages in India.

We shall begin our explorations here at Calcutta on the east bank of the Hugli (hōō′glē) River, which forms one of the mouths of the Ganges. This river flows into the Bay

Hindu school. Formerly the Hindus did not believe in educating girls, but there are now many thousands of school girls in the country.

of Bengal about eighty miles south of Calcutta. In coming up the river from the bay, we at first sailed through jungles so low and unhealthy that they are given over to the tigers and other wild beasts which roam there at will. A few miles farther up the stream the land rises, and we now and then passed a mud village with palm trees waving above it. As we proceeded, the population grew denser. Soon we came into a region of large jute mills, where bagging and other coarse cloths are manufactured for export to the United States and Europe. Farther on we passed vessels heavily loaded, coming in and going out. We

learned that the trade of Calcutta amounts to hundreds of millions of dollars annually and that this port has a great part of the foreign commerce of India, which is more than a billion dollars per annum and is increasing each year. The Hugli is filled with shipping, and it was in the midst of great steamers that we came to anchor in the heart of the city.

Its excellent harbor so far inland is one of the reasons for the growth of Calcutta. The city has waterways leading out in three directions. To the east it is connected with the Brahmaputra by various rivers, to the north by the Hugli with the Ganges, while on the west it has the Midnapur (mĭd′nȧ-po͝or) Canal. It is a great railroad center, and is the only seaport from which the rich products of Bengal and the valley of the Ganges are exported. More than one half of its trade is with Europe, about seven eighths of its imports coming from there. It has also a great trade with the United States, and with China, Japan, and other parts of eastern and southern Asia. The port extends ten miles along the river, and vessels drawing twenty-six feet can come to its docks. Its chief export business is in jute, most of which goes to the United States and Australia.

There are buildings on both sides of the Hugli. On the east bank they extend for miles up and down the stream and far back into the country. Having landed on the east bank, we take a taxi through a wide street and across a great park to the hotel where we are stopping. It faces a public garden and is on the Chowringee Road, a famous street of fine buildings, once private residences but now almost all occupied by hotels, clubs, and shops.

Calcutta is sometimes called the city of palaces, for it has many magnificent structures, the homes of British officials and wealthy Indians. It has fine public buildings,

such as the Post Office, the Town Hall, and the High Courts. The residence formerly occupied by the Viceroy is modeled after a fine English country house and is much like the White House at Washington, except that it is larger and grander. It is situated at the end of a wide park known as the Maidan (mī-dän′), which is several miles long and contains a race track and grounds for tennis, cricket, and golf.

At the upper end of the Maidan is a zoological garden, where one may see tigers which have been recently brought in from the jungle. They are still wild, and dash themselves against the bars of their cages as we come near.

Here, also, are the botanical gardens, where stands a famous banyan tree, over a hundred years old. The limbs of the banyan, which is a kind of fig tree, send down roots which penetrate the earth and grow into firm trunks, or living pillars, supporting the limbs from which they come. The main trunk of this great banyan has a circumference of fifty feet, while its branches extend far out on all sides. From each large branch the roots have gone down into the ground, so that it has altogether five hundred and sixty-two columns supporting it. As we look at it, it seems to be a mighty tent of green, the leaves uniting and forming a canopy covering more than an acre.

When we lie down on the ground, the supports seem to be a forest of tree trunks of various sizes. As we raise our eyes we see that each is joined to a limb that runs out from the trunk almost horizontally overhead. Some of the roots are short. They support the lower limbs. Others are twenty or thirty feet long and are joined to a branch higher up. Some are as thick as a man's leg, others not so thick as one's finger. Some, as fine as hairs, sway to and fro in the breeze; they are growing downward, but have not yet caught the earth. Banyan trees are among the peculiarities

A roadway through the trunk of a banyan tree.

of this part of the world. We shall find them here and there as we go over India, although none is so big as this great tree at Calcutta.

Driving back through the Maidan, we visit Fort William, the large stone-walled inclosure that is the army headquarters. After watching the many native soldiers going through their drill, we ride on into the official and business sections of the city. Here the buildings are large, and the stores are fine. Stopping at the Post Office, facing a beautiful lake on Dalhousie Square, we read on its walls an inscription which states that the marble pavement below marks the site of the Black Hole. This was a horrible little prison into which, on the night of the 20th of June, 1756,

at the command of the Nawab (nä-wôb′), who then ruled here, one hundred and forty-six British inhabitants of Calcutta were cast. Only twenty-three came out alive. The act created such great indignation in England that an army was sent out to punish the Nawab. This was the beginning of the British Empire of India.

Leaving the business section, we go on to the river to watch the people bathing in the waters of the Hugli, which, as they come from the Ganges, are considered holy and able to wash away sin. We visit some of the temples, especially the three-hundred-year-old temple of the terrible goddess Kali (kä′lē), after whom Calcutta is named. The image of Kali within it wears a necklace of skulls and a girdle of dead men's hands. The people are offering kids and goats as sacrifices to Kali.

As we move about through Calcutta we meet types of the many nations and tribes of Hindustan, people of all colors and strange costumes. There are men from the Himalayas with white faces, men from the northwest who are brown or yellow, and some from the great central and eastern plains with skins as black as a negro's, although they have features like ours. There are over six hundred thousand Hindus, who go about with their heads shaved, except for a tuft on the crown, and wear only a sheet wrapped around their bodies. There are three hundred thousand Mohammedans, black and yellow, wearing turbans and gowns; there are Klings, the color of ebony, clad all in white, and cream-colored Parsis. The latter wear brimless hats that look like inverted coal scuttles, and frock coats buttoned up to the neck, with skin-tight trousers below. We see scores of half-naked black and brown babies at play in the streets. Turbaned men dressed in white go by on the trot, carrying burdens.

The vehicles are of every description. There are carriages drawn by magnificent horses, each with its coachman and footman riding on the box and with two servants standing behind, on the step. There are automobiles with chauffeurs in livery, and gharries, or box-shaped Indian cabs, pulled by lean horses and driven by men wearing gay gowns and bright-colored turbans. There are carts, drawn by cattle with humps on their backs, and now and then we see a sulkylike carriage to which is harnessed a bullock wearing a bright-colored blanket.

Among the strange sights are the sleek, fat bulls which roam through the streets. As people consider cows and bulls holy, they are allowed to go where they please. We see them walking upon the sidewalks, and even eating at the vegetable stalls in the markets.

But suppose we take an airplane and drop down in Bombay, the great seaport on the opposite side of the peninsula. It is about two thousand miles distant, but we can make the trip in less than a day. We land in a beautiful city of over a million inhabitants, built upon a cluster of islands about a magnificent harbor.

Outside the town are eighty great cotton mills, fed by the cotton regions near by; within are large foreign stores and hotels, good schools, and one of the finest railway stations of the world. Bombay has also a native section of shops and bazaars, and suburbs where all sorts of manufactured goods are made. We drive down to the harbor to take a look at the shipping. Among the enormous docks is a dry dock so large that the biggest ocean steamers can lie inside it. There are many ships in from England, and from Marseille, Naples, and other ports of Europe, and we see a United States steamer starting out loaded with goods. It will pass through the Suez Canal, cross the

Street in Bombay. The city has many fine buildings and stores.

Mediterranean Sea, and go out through the Strait of Gibraltar into the Atlantic Ocean on its way to New York.

At one side of Bombay, in a park on a hill overlooking the sea, are five white towers about which vultures are flying and to which we see a procession of men marching, carrying a long white bundle on their shoulders. Those are the famous Towers of Silence, where the Parsis lay out their dead. That is the body of a human being who has just died. It will be stripped and laid naked on the top of one of the Towers, and the vultures will eat the flesh and pick the bones clean.

This disposal of the dead is a custom of the religion of the Parsis, who are fire worshipers. There are only about one hundred thousand Parsis in the world, but they are noted for their intelligence, integrity, and business ability. They have banks in all the great cities of India and are to be found in the chief business centers of southern and eastern Asia. There are more of them at Bombay than anywhere else.

The Parsis came to India from Persia generations ago, bringing with them this religion of the old Persians, which was founded by a man named Zoroaster. Considering the sun the highest visible type of the Creator, they worship fire as one of its emblems. They believe in one God, who has created for every person two spirits, one good and the other bad, who are always engaged in fighting for the soul they have been appointed to influence. According as a man favors the good or the bad, he will ascend to heaven or descend to hell. The Parsis keep fires burning in their temples, and they have one at Bombay which is said never to have gone out during hundreds of years.

But the Parsis are only one sect among the million people of Bombay. No city of the world has more religious

Parsi schoolboys.

or race types. It has Hindus, Mohammedans, Christians, and Jains, the Hindus making up two thirds of the whole. More than sixty languages are spoken inside the city, and many of the people speak English. It has also negroes from Africa, Tibetans from the Himalayas, Chinese, Japanese, Siamese, and Malays.

Madras, the third city of India, is larger than Buffalo. It is the leading commercial center of southern Hindustan and a great port, although it has no natural harbor and the sandy shore has to be protected by breakwaters. It lies on the west coast of the Bay of Bengal, about one thousand miles from Calcutta. It has a great trade in

cotton, tobacco, skins, and spices, some of which are sent from here to the United States. The place is interesting to us also because one of the first governors of Madras was Elihu Yale, who in 1701 founded Yale University.

We go from Bombay by rail to Madras, and later take the train to another large city. This is Hyderabad, the capital of the Nizam (nē-zäm′), who governs a country as large as Kansas, inhabited by over twelve million people, Hyderabad alone having over five hundred thousand. Standing in the midst of a wild, rocky region, the city is surrounded by a huge wall six miles in circumference, which is entered by thirteen wide gates. The people here are from all parts of India. Among those we see on the streets are Turks, Persians, Arabs, and Moors. The Nizam is a Mohammedan, and many Mohammedans come here to trade, though most of his subjects are Hindus.

During our stay we visit the palaces, which cover many acres and house altogether about seven thousand officials and others. Their courtyards are full of armed retainers, horsemen, and servants of various kinds. The Nizam rules in great state. His men wear gorgeous liveries, and when he rides out it is often upon an elephant, and with all the splendor of the ancient princes of India.

XLI. THE STORES AND TRADES OF INDIA

THE business of the Indian cities is carried on in bazaars much like those we saw at Rangoon in Burma. In some of the towns there are many stores under one roof; in others they are crowded along streets so narrow that cloth is stretched above them to shut out the sun. The most common store is not much bigger than a piano

Indian street peddler selling cakes.

packing case. It is so small that the customers cannot come inside it; so they stand out in the street as they shop, while the dark-faced, bearded merchant sits on the floor within with his wares piled about him.

Nevertheless, many of these little stores are factories as well. Behind the merchant two or more men or boys may be working away, many of the goods being made where they are sold. We see all sorts of manufacturing going

A silversmith. He makes ornaments while we wait.

on. Here, for instance, is the shoe bazaar. Shoes of bright-colored leathers are hanging on the walls outside the shops and from strings tied to the ceilings. Inside, flat on the floor, sit the cobblers, sewing and pegging away. They are barefooted, and hold the leather between their toes as they sew. Farther on is the bazaar of the wood-workers, where the carpenters are using their feet as a second pair of hands, sawing and planing as they squat or kneel on the floor.

In another street we see scores of men drawing wire. They have shops not more than six feet wide, where they are making fine gold and silver wire for use in embroid-

ery or in weaving brocade. The wire looks like threads of fine silk, the strands being so thin we cannot believe them to be metal. When we say as much to our guide, he asks us for a coin. We hand him an American twenty-five-cent piece, and he tells the workmen to turn it into wire. In a very short time they have drawn the silver out into a strand so fine that it is almost half a mile long. There are a thousand men engaged in wire drawing in Lucknow. In Delhi we shall see dark-faced Hindu men and boys using such gold and silver wire in embroidering ladies' dresses, which are to be sent to Europe for sale.

The Indians make beautiful embroideries, and weave curtains and carpets which are unsurpassed in the world. Think of stuff so expensive that enough of it for a dress costs from two hundred to five thousand dollars! This is the famous kincob (kĭŋ'kŏb) cloth woven at Ahmadabad (ä-mȧ-dä-bäd'). It is a heavy brocade of gold and silver, and is, perhaps, the most costly stuff made anywhere.

But suppose we ask the merchants to show us some shawls. India has long been noted for its shawls, some kinds of which sell for several hundred dollars apiece. The best are known as Cashmere shawls, being woven of the fine wool of Cashmere goats. They are made by hand, by families who work at the trade from generation to generation. It takes a long time to weave one.

Our turbaned Hindu storekeeper shows us a shawl and asks us to feel it. It is as soft as down and as light as so many feathers. Now the man tells his clerks to open it out. It is as large as a bed quilt. He asks for a ring. I pull one from my little finger, when lo, he puts one end of the shawl into the ring and draws the whole shawl through it. This is the famous ring shawl of India, one of the finest of all woolen fabrics.

Balconies, like those on the houses of this street in Delhi, are common in Indian cities and are often beautifully carved.

The muslins of Dacca are equally fine and light, four hundred hanks of the yarn of which the choicest are made weighing only one pound. Indeed, a pound of cotton was once turned into Dacca yarn so fine that it measured two hundred and fifty miles in length. The Indians make all kinds of cotton and almost every variety of fine silks and woolens. Much of such work is still done in the houses, although of late years many mills and factories have been erected, where the spinning and weaving are now done by modern machinery.

During our visit to the mills, we ask about the cotton industry, and are told that the fields cover more than twenty-one million acres, and that about four million bales are raised in one year. In the several hundred cotton mills there are almost one million spindles. This does not take into account the vast amount of work still done in the homes.

Continuing our travels, we observe that these people can do almost any kind of mechanical work. They make dyes; they tan and work leather; they do artistic carving in ivory and wood; they weave beautiful carpets and rugs, and carve and mold brass which is shipped all over the world. Every town has its blacksmiths and coppersmiths, and the whole peninsula is a beehive of industries of one kind or another. At present a vast number of the things made are turned out by hand; but factories are being gradually established, and machinery will some day make the Indians one of the leading manufacturing peoples.

Already India has many thousand people employed in its factories. There are about fifteen hundred cotton presses and mills of various kinds. There are two hundred establishments devoted to the pressing of jute and its manufacture into cloth. There are woolen mills and paper

mills, and great establishments making iron and steel. There are lace factories, silk filatures, and sugar mills. Indeed, labor is so cheap and so good that if manufacturing were properly encouraged, the people in time might make many of the goods they now import from other countries.

As we go on through the business parts of the city, we are stopped again and again by dealers and peddlers who beseech us to buy. The men stand in their stores holding up their goods and crying out: "Me poor man, Sahib! Me good man! Sahib, buy something!" They now and then bring their goods out to the carriages and automobiles, and peddlers run along after us and even throw their wares into our laps. We find that nearly every important merchant has men about the hotels and on the streets to ask foreigners to come to his shop to trade. Each says his master's place is the cheapest, but we know that if we go with him he will get a commission on the money we spend.

The Hindus have been noted for ages for their fine work in gold and silver and in precious stones. They have not only made the most beautiful rings, brooches, chains, and other ornaments for personal adornment, but have done wonders in the decoration of furniture and buildings. At Agra (ä′grä), in northern India, stands the Taj Mahal (täj mȧ-häl′), which is thought by travelers to be one of the most beautiful structures in the world. It was erected by Shah Jehan, a Mohammedan ruler of northern India, as a tomb for his favorite wife. It is of the purest white marble, and when it was completed, its interior was inlaid with jewels and precious stones. Another fine work of that time was the Peacock Throne used by this same ruler. This was made in the form of a peacock, the feathers being precious stones set in gold, in the natural colors of the peacock's tail. It was composed of diamonds, rubies,

Street peddlers in a large city in India.

carbuncles, emeralds, and other jewels so valuable that it cost, it is said, over thirty million dollars.

As our guide tells us these stories of India's past, we notice that the women of to-day are loaded with necklaces, bracelets, and rings, and we think it would be fine to visit the jewelry shops, and perhaps buy some beautiful things to carry back home. We have visions of fine stores with plate-glass cases containing a gorgeous display of watches, rings, pearls, diamonds, and other precious stones.

What do we find?

The jewelry store we visit is little more than a hole in the wall. It is only about ten feet square, while its dark-skinned, turbaned, long-gowned merchant looks more like a beggar than an owner of gold or diamonds. Saluting us politely, he asks us to come in, offering us a seat on the floor. He then directs a servant to fetch a red Cashmere shawl, and spreads this out between us and him. He gives another direction, and the servant brings in a bundle wrapped round with a dirty white-cotton cloth and sets it down in front of the merchant. The latter opens it and displays upon the red shawl a stock of gold and silver jewelry which dazzles our eyes. He lays out bracelets and rings of all sizes, strings of pearls, rubies, and sapphires, and also a magnificent necklace of diamonds, each of which is as big as a good-sized bean. To these treasures he adds strands of topazes and emeralds set in curiously carved gold, hanging one beside the other from a great golden band. There are, besides, brooches which cost a small fortune. We almost gasp as we see the wealth laid out before us.

We pick up a ring, and talk for an hour before we can buy. In India there are no fixed prices, so one always bargains in making a purchase. After awhile we learn to say just how much we will give, and then walk away. If our

offer is fair, we seldom go more than a few steps before the merchant runs up with the goods and grudgingly tells us that we can have them at our own price. As the average Hindu has more time than money, he will talk all day for a very few cents.

In doing business with the Indians we use coins whose value is based on the rupee, a piece of silver worth about thirty-three cents of our money, or about one third of a dollar. The rupee is a little larger than an American quarter. The smaller coins are silver annas and copper pice and pies. It takes sixteen annas to make one rupee, so that an anna is worth about two American cents. Three pies make one pice, and twelve pies an anna. A pie is equal to about one sixth of a cent.

Before the British came, the Indians had no banking system. Most of their savings were either in the shape of gold and silver coins, which they hid in their houses or buried underground, or in jewelry consisting of ornaments of gold and silver and diamonds and other precious stones. Much wealth is still kept in these ways, but there are now banks all over the country, including postal savings banks in which over sixteen hundred thousand people have money on deposit.

India's commerce is steadily growing, not only its home trade but also its foreign trade. The imports in some years amount to more than five hundred million dollars, and the exports are often much greater. India's foreign commerce is greater than that of any other country of Asia, so you see that it has an important place in the markets not only of this continent, but of the whole world.

To-day most of the commerce is with the United Kingdom, but there ought to be a vast number of wants among these three hundred million people which the United

States could supply, while there are many things they might sell to us. We feel that we should learn all we can about this enormous market and the life and customs of this most interesting people.

XLII. HOME LIFE IN INDIA — A LAND OF VILLAGES

USING automobiles for our journey to-day, we are riding westward through the great valley of the Ganges over a road as smooth as a floor and as wide and hard as any in the United States. There are enough such roads in this province of Bengal alone to reach from New York to San Francisco, and enough macadamized roads in India to reach twice around the world at the equator. The country has many other roads that are almost as good, and its public highways, if joined together, would extend for more than two hundred thousand miles; so that one can travel through the thickly settled regions by motor cycle and automobile.

As the valley of the Ganges is exceedingly rich, our ride is through a huge garden. The sun shines brightly, while countless birds sing in the trees or fly in great flocks across the rice fields. All nature is joyful, and Mother Earth teems with agricultural wealth. The only poor thing we can see is man. There are few lands upon earth where the people struggle so hard for a living as in India. There are some parts of this valley that support three hundred and twenty persons on an area equal to one hundred and sixty acres, which is the size of the ordinary American farm. This is two persons to the acre, or more than twelve hundred to the square mile. There are so

many people that the land does not produce sufficient food for them. In ordinary seasons the peasants have only about enough to keep them alive, and when the crops fail vast numbers are destroyed by the famines. Millions of Indian men support their families on less than a dollar a week, and many of the women we see working in the fields earn not more than ten cents a day. This is the situation in the great eastern plain of northern India, which lies between the plateau of the Dekkan and the foothills of the Himalayas.

On the western side of the peninsula, in the valley of the Indus and in the regions to the north and to the south, the people are fewer. There the rainfall is so slight that much of the land is a desert, although there are large irrigated sections. In many places there are no people at all, and some are inhabited by nomadic tribes who drive their cattle and sheep from place to place to find pasture.

But let us slow down our speed and take a look at the farmers as they work in the fields. We find them everywhere toiling. The men are plowing and digging, the women and children hoeing and weeding the crops. Their clothing is scanty, and their black skins shine like oiled ebony under this hot Indian sun. The men are clad in little more than a strip of white cotton wrapped around the body, with the end pulled through the legs and fastened with a knot at the waist. They have turbans of white on their heads. A few of the richer men may have jackets of cotton, and perhaps an additional strip of cloth wound about their shoulders, but as a rule both men and women look as though they had dragged the sheets from their beds and wrapped them about their persons as clothing. A woman here and there wears a sleeveless jacket ending under the armpits, below which a skirt falls from the waist

Indian girls carrying water containers on their backs.

to the feet, exposing a wide belt of bare skin. Others do not wear the skirt, but use a full waistcloth instead. Almost all of the people are barefooted, and some are barelegged as well, while very small children wear no clothing at all. Nevertheless, the mornings and evenings are so cold that they shiver as the winds blow through the valleys.

But let us stop at one of the villages. They form the homes of the farmers, who go out daily to their work in the fields. Each village has also its tradesmen and mechanics, including a carpenter, a shoemaker, a barber, and a blacksmith. It has its priest and school teacher, and is governed by a headman, aided by a clerk and the village council. The lands outside the village belong either to the people who dwell in it or to landlords who may live in other parts of the country, and to whom the farmers pay a money rent or a part of the crop.

The average village is made up of mud huts. We pass one every few miles as we go on with our trip. The whole country is covered with them, and they number, all told, more than three quarters of a million. You may have heard the story of the Wandering Jew, who, tradition says, gave Christ a blow when He was carrying His cross up to Calvary, and, as a punishment, was condemned to wander about over the earth for all time to come. If the Jew had come here to India the year he was sentenced and visited a different village every day until now, he would still have more than fourscore years to travel before he reached the last village. There are living in such villages three times as many people as we have men, women, and children in the United States.

Most of the villages are small, tens of thousands of them consisting of forty or fifty one-room, straw-thatched mud

huts. The well at the side or in the center of each village is the only water supply. The women come there in the early morning with their jars and pots, and there in the evening the men and boys gather to gossip and chat.

The average hut is about fifteen feet square, not as big as our cow stables. It is made of sun-dried bricks, with an earthen floor plastered with cow dung, and with holes in the walls for windows. The fireplace is a few bricks laid one upon another. There is no chimney, and the pale-blue smoke finds its way out through the holes in the wall, or through the door, or from under the eaves. Well-to-do farmers may have several such huts with a mud wall about them. There are no stables, and the cattle wander about over the narrow road that winds its way through the village.

What are those lumps of brown mud about the size and shape of a fat buckwheat cake which we see plastered on the walls of the houses? They cover the outsides of the huts, and piles of them have been stacked up for sale. Those mud cakes are the fuel of a great part of Hindustan. They are made of cow manure and earth, mixed together and molded to shape by the hands of the women and girls. Wood is scarce in many parts of the country, so the children walk along the roads or through the fields, following the cattle and gathering up every bit of manure to make into fuel. The cooking is all done with such cakes.

But let us enter a hut. How uncomfortable it is! It has nothing homelike about it. There is but one room, and it is dark and smoky. There are neither tables nor chairs. There is no place to rest except on the earth floor, and the family squat there at their meals.

We ask what they eat, and find that the chief diet consists of beans, millet, and similar grains, ground up and

An Indian village. The huts have thatched roofs. There is little furniture inside.

made into cakes or cooked as a mush. They seldom have meat; indeed, many of them would as soon think of becoming cannibals as of eating a tenderloin steak. They regard the cow as holy, and would be cast out by their families if they ate beef, though some of the classes, or castes, are meat eaters. All use a rancid melted butter, called ghee. The meals are usually served in large brass bowls, with smaller ones for the curry and condiments. The dishes are clean, and shine like well-polished gold. There are no forks, and all eat with their fingers. The men are served first, the women taking what is left. In many places the food is cooked out of doors. Most people have only two meals a day, and some only one.

Outside the huts we see the women making the flour for the family. They pour the wheat or millet through a hole in a round stone which rests on top of another, and then turn the top stone around, its weight grinding the flour. The flour is mixed with water and baked into cakes over the coals.

But where are the beds and sleeping places of the family? There is nothing which looks like a couch inside the hut, and no straw on the floor. We can easily see by going to the door. The beds stand outside the house during the daytime. They are taken there at sunrise, so that the people may have more room. The Hindu bed is merely a netting of ropes stretched over a framework of wood with wooden legs at the corners. As it is not over four feet long, the sleeper usually lies with his legs doubled up. Sometimes part of the family sleep out of doors. The poorer classes do not use nightgowns, but wrap themselves up in the sheets they wear in the daytime, and seem able to sleep anywhere, even though it be on the bare ground or the stone floor of a railway station.

But what are those curtains hung over the doors of many of the huts? They are put there to keep the men who pass by from seeing the women within. The women of the upper classes live in the back rooms of the houses, for women are usually secluded in India and are never seen by any other men than those of their own families.

We look in vain for the playgrounds of the children. The little girls begin to help in the housework at five years old, while the boys work in the fields at little more than that age. The boys sometimes play marbles or fly kites, and the girls have dolls, but no one has a bicycle, and football and baseball are unknown in the village.

During our stay in one of the villages we see a wedding procession. The groom is a Hindu boy of fifteen, and the bride a little Hindu girl only eight years of age. The groom, wearing a red cloth cap and dressed in tawdry red clothing, is riding a white pony. With him is a crowd of barelegged men and boys, his relatives and friends, trotting along on foot as an escort.

The little bride follows behind, but we cannot see her, for she is shut up in that large box covered with red cloth. The box is hung to a pole, and is carried on the shoulders of men. Behind come some women bringing the housekeeping furniture supplied by the bride. One group carries her bed, while another holds up a tray bearing her cooking utensils, which consist of three or four iron pots and a rice jar—the whole outfit not worth more than a dollar and a half of our money.

Every year thousands of Indian girls are engaged to be married while they are still babies. They are then looked upon as wives, although they do not live with their husbands until they are ten or twelve years old. If, in the meantime, the husbands should die, they become widows,

Parsi women. They are better educated and have more advantages than most Indian women.

and as such their fate is a sad one; for Hindu widows cannot marry again, and are despised by their families and everyone else.

The women of India are in many respects the slaves of their husbands. They receive but little education, although of recent years the British have established girls' schools. The poorer women do the hardest of work. We see them digging in the fields, breaking stone on the roads, and carrying burdens upon their heads.

There are some people of India, however, who treat their women much better. The Jains are now educating their daughters, and the Parsis, of whom we have already learned something, have good schools for girls. The Parsi women go about as they please. Many of them are beautiful and they are quite as intelligent as their sisters of Europe or the United States.

1. Name some of the largest cities of India. Compare each with one of about the same size in the United States.

2. Locate Calcutta. Why has a great city grown up at this point? Where is Bombay? Take a trip from there to New York, naming the waters through which you pass on the way; from Calcutta to San Francisco. Locate Madras. Where is Hyderabad? Describe the city and give the title of its ruler.

3. What peculiar religious people live in Bombay? Describe them and some of their customs.

4. Describe the business sections of an Indian city and the industries carried on there. Make a purchase in a jewelry store and show how trading is done. What coins do we use? What is an anna? A pie?

5. Take an automobile ride through the valley of the Ganges and tell what you see. Visit a village, and tell how the people live. Compare it with a small town in the United States; with one in Japan; with one in China.

6. Describe a wedding procession. At what ages are children sometimes married?

Native irrigation pump being operated by a camel.

XLIII. FARMING IN INDIA — RICE, WHEAT, COTTON, JUTE, POPPIES, ETC.

AS we go on with our travels, we see that the Indians are a nation of farmers. The people swarm over the landscape, while every little patch has half-naked men and boys working in it. More than two thirds of the Indians get their living by tilling the soil, and Hindustan has more farmers than there are men, women, and children in North and South America. The country raises all its own food except when the crops fail, as they do now and then, causing terrible famines.

As we have seen, the peninsula begins with the Himalaya Mountains and extends almost to the equator. Since it is in the temperate and tropic zones, it has every variety of climate, many changes being created also by the height of the land above the sea and the direction of the winds. Here in the valley of the Ganges the rainfall is enormous, and the

farming is that of a tropical low country and moist climate. In the high, dry lands of the northwest the country is largely a desert, for, owing to the winds, there is a scanty rainfall. There are nomadic tribes on the desert, parts of which are devoted to cattle and sheep, grazing being the only support of the farmer. In the same region is some dry farming, and large tracts are irrigated from wells, rivers, and streams.

India is one of the oldest of irrigated lands. For ages men have been raising water in buckets from the wells and streams and pouring it into the canals which feed the ditches that water their crops. They have lifted it in bags of cowskin by means of ropes running over pulleys to which water buffaloes are harnessed, and also by water buckets on the ends of pivoted poles, as on the banks of the Nile. In recent years they have been importing windmills from other countries for this purpose, and we may also see pumping machinery made in the United States.

The British have brought under cultivation many millions of acres that were formerly worthless. They have constructed irrigation canals long enough, if placed end to end, to reach halfway around the earth. The longest irrigation canal is in northern India far beyond Delhi. Its main channel is three hundred miles long.

As we travel on through the country we can see how the farming is done. Here in Bengal the fields are all small, and the tools are exceedingly rude. See that man plowing? He is well-to-do, for he has on a turban and more clothes than the ordinary Hindu, yet he is driving two bullocks yoked to what seems little more than a stick shod with iron. That is a native plow, which only scratches the soil, and is so light that the man can carry it to the field on his shoulders. Nevertheless, the ground, gone over again and again, produces large crops. A mile or so farther on we see another

Disk harrows and other farm implements are fast coming into use in India.

farmer who has an American plow, to which bullocks are hitched, and we now and then find modern farm tools.

Besides these small tracts, there are many large ones belonging to the rajahs and the rich natives, some of whom are using modern machinery. On these farms they have harrows, reapers, and even harvesters and gasoline tractors. The people are being taught to get more and more from the land. In many places they now raise two crops every year, and the day may come when they will compete even more than they now do with our cotton and wheat in the markets of the world.

In our talks with the farmers and the government officials we learn about the principal crops. One of the most important is rice, almost half of all in the world being raised here and in Burma. The crops that interest us most from an American standpoint are wheat, cotton, and jute. Of all lands, India stands third in the production of wheat. It produces so much that if the world crop of one year were gathered together almost one bushel out of every ten would

come from India. The country raises about a third as much wheat as the United States, and as its wheat is largely exported to England, it competes with our wheat in that market. Nevertheless, the wheat is raised in the rudest of ways. Much of it is cut with the sickle, and it is sometimes pulled out by the roots. Millions of bushels are threshed out by driving bullocks and buffaloes over the straw and winnowing the chaff and grain in the wind. The straw is saved for feeding the cattle or for fuel.

We see no barns as we travel over the country, and no elevators such as we have in our wheat lands. As the grain is left piled up on the ground until it is shipped to the market, there is great waste. The chief wheat regions are on the highlands of the north, and in parts of the plateau of the Dekkan.

We want to find out all we can about Indian cotton, for next to the United States the Indians raise more cotton than any other nation. About one sixth of all the cotton cloth upon earth is made either in India or from cotton grown there. The raw cotton of India competes with ours in the markets of China and Japan, and also in Europe. About two million bales are exported each year, about half of this going to Japan and China, and the remainder to Europe.

India does not raise as good cotton as we do, but the planters are importing American seed and they are now growing plants with a longer and better fiber. As the fiber of the Indian cotton is short, it cannot be used for many purposes. The shortness of the fiber makes it good for mixing with wool, and we import some Indian cotton for that purpose.

The cotton goods made in India are coarser than ours. Most of them are used at home, for, as we have learned,

these three hundred million people are clad almost altogether in cotton. We can see also what an enormous cotton-goods market they might have in the four hundred million people of China and those of Africa, just over the way. Much of the Indian cotton goes to Africa, where it brings a lower price than cotton goods made in the United States. I have found American cotton cloth famous for its excellence among the people of the Dark Continent. They call our goods "Americana," and will pay more for them than for cottons made anywhere else.

It is interesting to know that the cotton plant came originally from India, in some parts of which it grows wild. The richest cotton lands are in Berar (bā-rär′), in south-central India, and in the province of Bombay, although large quantities are grown near Madras and in other parts of the peninsula. In some regions the cotton is sown broadcast, but on the best cotton lands the work is carefully done. The seeds are drilled in, having first been coated with a plaster of manure, mud, and water. Later, the crop is thinned out, weeded, and hoed. The sowing begins in June, and the picking in January, lasting until March or April.

Another fiber plant of India of great importance to us is jute, for we use it by the millions of pounds, as burlap, rough bagging, gunny cloth, and for baling our cotton. Some of the finer kinds of jute are mixed with silk, and it is also employed to make carpets and shirtings. India produces almost all the jute grown in the world. The plant can be raised in the United States, but it does not pay there, for it requires a great deal of hand labor. In India the crop is grown largely along the rivers and in the valley of the Ganges. The seed is sown broadcast in April, and by August the plants are about twice as high as a man. They are then cut off close to the ground and thrown into water,

Cotton bales being hauled to the factory by bullocks.

Loads of jute waiting to be placed in cars for shipment.

so that the outer skin, or bark, may rot off. After a time all the bark can be pulled away, when the long, straight, silky fibers appear. They are separated from the bark and washed, then dried and put into bales of four hundred pounds each, ready to be sent to the mills or the markets. Our cotton crop amounts to twelve or fifteen million bales per annum. India raises between five and eight million bales of jute in one year. A good crop will yield six or more bales to the acre.

There are many things from India that have a large part in our daily life. Indigo, for instance, which is used every wash day in the bluing that whitens our clothes, and from which coloring materials are made, is obtained from a plant which grows better in India than almost anywhere else. It comes from a reed whose leaves contain a blue coloring matter and which grows to a height of three or four feet. The seed is drilled in, and the plants are weeded and cultivated. As soon as they blossom they are ready for the harvest, when they are cut off close to the ground, tied up in small bundles, and thrown into large vats of water.

After about ten hours they begin to ferment. When the water turns yellow, it is run off into other vats, through which air is forced either by means of a paddle wheel or from a compressor. During this process the water changes from yellow to green and the particles of blue indigo rise in flakes. The liquor is then allowed to settle, and the flakes sink to the bottom, forming a sediment which is called indigo mud. The water is now drawn off, and the indigo mud is strained and boiled. The indigo thus obtained is pressed into cakes to be shipped to the markets.

Formerly all the world's supply of indigo was obtained in this way, but nowadays the greater part of it is made in laboratories by a chemical process.

The linseed oil we mix with our paint to help protect our houses from the weather is another of the products of India. It also forms a part of the oil cloth on the floors of our kitchens and bathrooms and of the waterproof coverings for carriages, automobiles, and other such things.

India grows more flax, from which linseed oil comes, than any other country of the world. Argentina stands next, and after that Russia and the United States. In some countries flax is grown for the fiber. This is true of Ireland and Russia, but the flax of Argentina, the United States, and India, is grown for the seed. The seeds contain a great deal of oil, which is pressed out and shipped to the market. The seeds are drilled in rows about one foot apart. They soon sprout and reach a height of about two feet. While still green, they blossom out into beautiful flowers of pale blue. By and by, after the flowers fall, the little round seed pods appear. Every pod has ten divisions, each containing one smooth, shining seed, of a flat, oval shape, and a rich chestnut color, just like our flax seeds at home. They are threshed out with the flails and winnowed by being thrown up into the air while the wind blows. A good crop should yield about five hundred pounds of seed to the acre. Hundreds of millions of pounds are raised every year.

Riding along in our automobiles, we now and then see great fields of poppies. In America, we grow beautiful poppies in our flower gardens; in India the poppy is cultivated not for its beauty but for making opium. The crop is sown under the direction of the British government, which receives millions of dollars a year from the sale of this drug. Every farmer who raises poppies must get a permit from the proper official and must agree to sell all his crop to the government.

The poppy seeds are sown in November, and in February the plants burst out into beautiful white flowers. Some are of other colors, but most of the Indian poppies are white. When the blossoms are ready to fall, the little capsules just below them are cut or scratched with a thin piece of iron. This is done in the evening, and by the next morning the thick juice has oozed out of each capsule. This juice is opium. At first it is of a milky-white color but it gradually changes to a rose red. It is scraped off with a small sheet-iron scraper and collected in earthen jars. After the farmer has gathered his whole crop, he turns the jars over to the government and receives the regular price for them.

From the contents of the jars is manufactured the opium of commerce. Some of the product is consumed in India; in the past much of it went to China; some is shipped to Europe, and some to the United States. Opium is of great value as a medicine; but those who eat or smoke it soon find that they cannot get along without it. They become opium drunkards, and it destroys their bodies and their minds.

Among the other important crops of India are tea, sugar cane, pepper, and spices. We may see some of these growing as we go on with our travels.

1. Describe the farmers of India and the opportunities for the introduction of American farm tools and machinery. Describe the irrigated lands and some of the methods of irrigation.

2. In what crops of India are we most interested? How does the wheat compare in quantity with that of the United States? Where is it grown? Describe the rude ways of growing and harvesting. What kind of goods might we sell to such farmers? What kind of tools would the small farmers need?

3. Trace a cargo of wheat from Bombay to London; from Duluth to London (see Carpenter's "North America"). Which

travels the farther? Tell all you can about wheat. (See Carpenter's "How the World is Fed.")

4. Tell what you can about the cotton of India. How does it compare in quantity with that of the United States? In quality? Why do we import some Indian cotton? What cotton cloth do the Africans like best? (For further information about cotton, see Carpenter's "How the World is Clothed.")

5. What is jute? Why is it important to us. How is it raised and prepared for the market? Trace a cargo of jute cloth from Calcutta to the cotton presses of New Orleans, via Panama; via Suez. How far does it travel in each case?

6. Mention an important coloring matter that comes from Hindustan. How is it made?

7. What is opium? Linseed oil? From what plant does each come? What important fiber do we get from the plant giving the oil?

XLIV. THE RELIGIONS OF INDIA—BATHING IN THE HOLY GANGES

AS we travel about in India we see temples and shrines almost everywhere. We meet pilgrims going from one holy place to another, and frequently see men and women praying to idols of horrible shapes. The empire is one of many religions, and we shall have to keep our guides at our elbows to prevent our doing something that might offend certain classes of people. The Indians have many customs peculiar to themselves, and their religions are very different from ours. Many would be defiled if they ate from the same dishes that we do; there are millions who would not think of taking a drink from the same cup unless it had first been cleansed by fire. Vast numbers would rather take poison than eat beef or pork. The Indian Mutiny, in 1857, one of the great rebellions of history, was

caused when cartridges greased with a mixture of lard and tallow were furnished to the native soldiers, who had to bite off the ends of the cartridges before using them in their guns.

The Hindus, who follow the ancient religion and customs of their race, are two hundred million in number—more than all the Christians of North America. Besides these there are in India nearly seventy million Mohammedans, about half a million Buddhists, and many who worship spirits. The spirit worshipers are found among the half-savage tribes. At Bombay live the Parsis, who, like the old Persians from whom they are descended, worship fire. There are also a number of Christians who have been converted by missionaries from America and Europe.

We have already learned something of Buddhism in Japan, Siam, and Burma, and we shall find many Mohammedans as we go on to the westward through Persia, Arabia, and Turkey. The Hindus are to be found only in India. There are so many of them that they number about one eighth of all the world's people. Their religion is based upon a belief in one god who may appear in so many different forms that the people are sometimes said to have millions of gods. These gods are often represented by images, or idols.

Hinduism has had a great effect upon India. Under it the people are divided into classes or castes, each of which must do certain things, follow certain trades, and be superior or subservient to the other castes. At first there were only four great castes: the priests, the warriors, the farmers, and the slaves. But these four castes have been so subdivided that there is now a special caste for every trade and every walk in life. It is not permitted that a man should do anything outside the work of his caste. If a boy's father is a

priest, the boy must follow the priesthood; if a merchant, the boy must be a merchant; if a shoemaker, a shoemaker; and if his father is a street sweeper, he can have no hope to rise above sweeping streets for the term of his life. It is easy to see how little incentive to ambition there must be under such a system.

It is also believed that when a man dies, he will be born again as a plant, an animal, or a mineral; or perhaps as a human being of a higher or lower class than was his before death. Moreover, since one may acquire merit by torturing himself, some forsake home and friends to wander among strangers. In order to become holy, some fast until they are all skin and bone; some sleep on beds of broken stones or sharp spikes, while others try to do without sleep altogether. One may stand on one leg for days at a time, and another may hold up his arm or leg until it becomes stiff and cannot be moved.

Suppose we visit the holy city of Benares, where tens of thousands of Hindus go every month to worship and to bathe in the Ganges. The Ganges is considered sacred throughout its whole length, but the spot where Benares is situated is regarded as the most holy of all. The Hindus believe that whoever dies within ten miles of it is sure of entering heaven, and that the sins of those who bathe there will be washed away forever.

Benares contains about two hundred thousand people, while many thousands of pilgrims from all parts of India go there every year. Some come on the trains, and others on foot, walking hundreds of miles, and kneeling down to pray every few steps on the way. When they arrive, they move about from temple to temple, saying their prayers. They go into the river to bathe and pray, and they may be seen everywhere engaged in their devotions.

Pilgrims bathing in the Ganges at Benares.

The day is just breaking as we start out from our hotel in Benares and make our way through the streets to the banks of the Ganges. The roads are already filled with dark-skinned men, women, and children, clad in long strips of cotton of white, red, and blue. Each wraps his strip around his body and pulls it over his face, so that even the mouth and nostrils are covered, and only the eyes show. In the cold dampness of this early hour all are on their way for a bath in the holy river.

The worshipers are of all classes. Some are half naked, while many are barelegged to the thighs. The richer ones have on woolen blankets and Cashmere shawls of bright red. The poor are barefooted, for few can afford to wear shoes. The women are gorgeous with jewelry, even the poorest having their arms covered from wrist to elbow with silver or brass bracelets. All have anklets of silver or gold, while not a few actually wear rings and bells on their toes. Some have rings, often as big around as the bottom of a tin cup, in their noses, so that their wearers must put food through the rings when they eat. Everyone has a brass jar to fetch the holy water of the Ganges up to the temple, or to carry it back to his home.

We push our way through the crowds to the upper end of the city, where we get a boat upon which to go down the river. We direct our rowers, six dusky sailors clad in white gowns and high turbans, to keep near the shore. We float along the stream not far from the steps that lead up to the temples and line the right bank of the river. There are about three miles of these steps, upon which thousands of half-naked, dripping men and women are continually moving. Little streams run down the steps from the wet clothes which cling to their bodies. Now look at the crowd in the river. Hundreds are bathing, standing

near the shore with the water up to their waists. Others are kneeling on the banks, or muttering prayers as they sit there and lifting up their brass bowls again and again to pour the sacred fluid over their bodies.

But see, the sun rises! Its rays make the half-naked people shine like polished mahogany and turn the brass jars to gold. The jewelry becomes more gorgeous than ever against the wet background of dark skins.

We reach over the edge of the boat and dip our hands into the water. It is so cold that we do not wonder that the people shiver as they pour it over their bodies. Some are invalids and look lean and sickly. Many are brought here to die; for they feel sure that if they should pass away in the river itself, their lives in the next world will be happy. As we look, a confused noise of many voices in prayer rises from the great crowd about us, and we marvel at this worship of a stream, which is so real to these millions of people.

Among the bathers, we see many gray-haired worshipers. A skeletonlike old man wearing nothing but a waistcloth, glued, as it were, by the water to his now dripping skin, is standing there at the foot of that temple. See! He throws his shriveled arms upward, and with long, snaky fingers outstretched, prays through chattering teeth to the sun. Just beyond him is a young woman casting flowers into the Ganges, and all about us, on the drier parts of the steps, under great umbrellas, half-naked, black-skinned priests are sitting. They have before them, little boxes of red and white paint for marking the bathers, as they come from the water, with the charms and emblems of the great Hindu gods.

Floating on down the stream, we see a thick smoke arising from a little hollow or ravine in the bank, and ask

our boatman to stop there. The smoke comes from some fires, a little back from the water, built for burning the dead. The Hindus believe in cremation, and think that if their bodies are burned on the banks of the Ganges and the ashes are thrown into the river their souls will go straight to the better land. Such funeral pyres may be seen everywhere along the Ganges, and there are cremation places in all the cities.

Let us leave our boat and visit the temples. There are one thousand in Benares, representing many gods. They are of every description, the Golden Temple being the finest. This temple has spires plated with gold, which may be seen miles away in the country about. It is devoted to Siva (sē'vȧ), a terrible god, who is supposed to sit enthroned on one of the peaks of the Himalaya Mountains, where he is waited upon by innumerable spirits.

One of his symbols is the bull. In a temple near by a hundred live sacred bulls are kept all the year round; these are white and dove-colored animals, beautifully formed, with humps on their backs and long ears hanging down like those of a rabbit. As we enter the courtyard of the temple we find the people feeding and fondling the bulls, throwing flowers to them, and putting garlands of flowers around their necks. Some have brought water from the Ganges in their brass jars; this they offer to the bulls, chanting prayers as the animals drink. Outside the temple are men peddling flowers to feed the sacred bulls, which are kept fat upon flowers, grass, and vegetables.

Leaving this temple, we drive on through the city, seeing sacred cattle here and there working. We have already observed them in all parts of India, drawing carts and plows. They are also harnessed to carriages, their horns often decorated with ribbons and flowers.

Feeding the monkeys in the temple of Hanuman at Benares.

There is one other strange worshiping place that we must visit before leaving Benares. This is a temple supposed to be the home of the monkey god, Hanuman (hŭn-o͝o-män′), and called the Monkey Temple. We do not wonder why as we enter its court, for the temple is surrounded

by a wall over which hang mighty trees filled with chattering monkeys, while other monkeys play about in the court. There are peddlers at the entrance selling popcorn, some of which we buy and throw down on the floor. As it falls, the monkeys cry out; they leap down in droves, fighting over the corn. We feed them again and again, while the guards warn us to be careful, saying that the animals are vicious and often bite strangers.

There are many other places in Benares that we might enjoy visiting, among them the well said to have been dug by the god Vishnu and filled with his sweat. The city itself is said by tradition to be three thousand years old, and it has been a place of pilgrimage for hundreds of years.

XLV. AMONG THE RAJAHS. THE NATIVE STATES OF INDIA

SCATTERED over Hindustan are many provinces governed by native princes, or rajahs, each of whom has a British resident or official to advise him how to rule. The rajahs collect the taxes and administer the laws. They can make public improvements, organize schools, and develop their countries or not, as they will. But if a rajah misgoverns or oppresses his subjects, the British adviser reports his conduct to the Viceroy, who may, if he thinks it advisable, even dethrone him and appoint another man to rule in his stead.

The native states comprise more than one third of the Indian Empire, and contain almost one fourth of its people. Hyderabad, which is a little larger than Kansas, has more people than our state of New York, while Baroda (bȧ-rō′dȧ),

which is only as big as Massachusetts, has over two millions. The very progressive rajah of that state has established more than three thousand schools. Many of the rajahs are well educated and are doing all they can to better the condition of their people. Some have established factories and great irrigation works and are teaching their farmers how to get the most out of the land. Almost all of them live in splendor, having gorgeous palaces with thousands of servants. Some have armies with camel and elephant troops, although the British do not allow them to make war upon their neighbors. During the World War many of the rajahs sent their soldiers to Europe to aid the Allies in fighting the Germans.

The most powerful of these native rulers is the Nizam of Hyderabad, whose capital city and whose palaces we have already seen. The richest ruler in India, he is said to have an income of several million dollars a year. He has four hundred motor cars and a dinner service of solid gold. His province has seventy-nine towns and twenty thousand villages, and large imports and exports. Another strong rajah governs Mysore (mī-sōr′) in southern India, and others have provinces in parts of the great plain, in Kashmir (kăsh-mēr′), and in the Himalaya Mountains. Several of the most important rajahs are in western India, in a region known as Rajputana (räj-po͞o-tä′nȧ). We can visit one of them in the course of our travels through this region.

The native state we select is Jaipur (jī′ po͞or). It is almost twice as large as Massachusetts, and its population is over two millions. The prince who rules it has the title of Maharaja (mȧ-hä-rä′jȧ). He is friendly to foreigners, and will make us at home.

Here we are at his capital, said to be the finest native city in India. We have seen nothing like it so far in our travels.

The Maharaja of Jaipur.

Imagine a big city surrounded by a thick wall as high as a two-story house, which is pierced by seven gates guarded by cannon. Let all the buildings be of two stories and painted rose pink. Let them stand close to the sidewalks, with balconies projecting so that arcades run below from house to house, enabling one to be out of the sun as he walks through the town. Let the streets be wide and smooth as our best roads at home, and laid out so that they cross one another at right angles. Now you have some idea of Jaipur.

But look at the flat roofs. Upon them sit or walk women and children clad in gay colors. Flocks of parrots, pigeons, and crows are flying about or resting here and there on them. The balconies are filled with dark-faced men and boys wearing turbans and gowns, and with Hindu maidens whose faces are covered with shawls except where their eyes shine out through the folds.

We walk through the arcades, stopping at the shops in which the dark-skinned, bearded merchants sit cross-legged. Around them are piled cottons and silks and jewelry of all kinds, together with the knickknacks and other wares used by the people.

Stepping out into the street, we make our way through one of the most picturesque crowds of men and beasts to be found in the world. The people are dark faced and many of them are fine looking. Some rush along, and others move leisurely. Some are chatting; others are pushing and yelling.

There are hundreds of camels, sullenly stalking with ungainly stride through the crowds. Here comes one ridden by a woman. She sits on the hump, her bare feet, upon which show golden anklets, resting against the sides of the animal. She has a shawl over her head, but this is so folded that only one of her black eyes can be seen, as she motions to her servant, who leads the beast, where he is to go.

See that other camel coming up the street with a load of stones on each side of his hump! He has two great paving flags, each as big as the top of a table, slung there by ropes. He is evidently disgusted; for he moves along with his lower lip down, pouting like a spoiled child. At the side of the road kneels a third camel. His drivers are tying long rafters one after another, to his back. At each addition the great beast blubbers and cries like a baby. We can see the tears roll down from his proud, angry eyes. Up the street ambles another camel ridden by a soldier, and behind him is one with a boy on his back.

But look at the elephants! There are a dozen of them, each ridden by a black driver in white clothes and turban, moving down the street in double file. Those elephants belong to the rajah, and the drivers are his servants who are taking the beasts out for exercise.

And then there are thousands of bullocks, carrying hay, stones, and various kinds of merchandise. Here comes one with a man on his back. The rider wears a turban, and his long beard, rich gown, and red-leather shoes turned up at the toes, make us wonder who he may be.

We see Arabian horses ridden by the rajah's officials and others of the rich men of the city. The riders have gold chains round their necks, gold bracelets on their arms, and gold rings on their fingers. They wear gold-embroidered turbans and cloth-of-gold vests, while their lower garments are of cloths rich and costly. They sit straight as they ride, and by the side of each runs a groom who, having cleared the way for his master, goes back and trots along by his stirrup waiting for orders.

The crowd on foot is equally interesting. See these Hindu girls who are shouting out strange songs as they dance on the sidewalk! They are dark faced, but by no means

An Indian girl wearing anklets and bracelets, several necklaces, a nose ring, earrings, and rings on her fingers and toes. All this jewelry is of native manufacture.

bad looking. They are dressed in gay-colored cottons and loaded with necklaces, rings, bracelets, and anklets. Some of them have rings on their toes. They are professional singers, who are always in demand at weddings and parties. Behind them come some Mohammedan women wearing a hideous costume consisting of a short purple jacket and a divided skirt of red cotton which is full at the waist and narrows as it goes downward, fitting tight at the knees.

As we go on, we see that all the women wear jewelry. Even those who work on the street, breaking stones and carrying earth to smooth the roadway, have great silver rings on their ankles and bracelets of silver or glass on their wrists. Many have rings in

their noses, and some little girls have rings and bells on their toes.

Here comes the street-sprinkling machine of Jaipur. It is a brown-skinned, half-naked man, with a bag on his back. The bag is a pigskin, sewed up at the legs and tail, the neck forming the mouth. It contains several gallons of water, which the man scatters over the street by holding his hand at the mouth of the bag and swinging himself this way and that as he walks. He belongs to the caste in which the water-carrying business descends from father to son.

Continuing our way through scenes of this kind, we come at last to the palace and gardens of the Maharajah. Lying in an angle formed by the two main streets, they cover one seventh of the area of the whole city. The palaces are large buildings surrounding courts paved with white marble and containing many rooms carpeted with splendid old rugs. There is one large parlor with its floor covered with hundreds of skins of the tigers and leopards killed by the rajah.

XLVI. WE TAKE AN ELEPHANT RIDE

THE officials have informed us that the rajah has ordered that the best of his elephants be brought out for us. We are to spend a day in a ride through the country on elephants. The men ask us first to have a look at the huge beasts as they stand in the stables.

What magnificent creatures they are! They are larger than any we have yet seen in our travels. Their heads are painted or tattooed in the patterns of a camel's-hair shawl. Each beast has a brass chain about his neck, and his white

Riding elephants are covered with gorgeous robes. The canopy protects the passenger from the hot sun.

ivory tusks, cut off at the ends, are tipped with brass knobs and bound round with heavy brass rings.

We watch the keepers lead the huge creatures out into the courtyard and order each to kneel down that he may be blanketed and saddled. The saddle is an immense wooden framework cushioned with cloth. The animals are so large that even when they kneel the saddles are so high from the ground that the men bring out a ladder for us.

Now the drivers have straddled the necks of the elephants, each putting his legs behind the two great flapping ears. Telling us to hold tight to the framework of the saddle, they give the signal to rise. They do this by prodding the head or pulling at the ears of the elephant with steel hooks. The beast understands, he gives a grunt, and then rises slowly, swaying a little, so that we have all we can do to hold on.

Now we are moving along through the streets, as high up in the air as the roof of a cottage, and the rajah's servants who have been ordered to accompany us, seem far down as they trot along on each side. The elephants go slowly, with a swaying motion, so that we bend from one side to the other, feeling much as if we were on a boat gently tossed by the waves. We are almost seasick at first, but this soon passes off, and we begin to enjoy our strange ride. Leaving the city, we skirt the sides of the mountains.

Our road leads over the hills through the wilds. We are now far out in the country, but nothing we meet seems to fear us; the Hindus are kind to wild animals and respect all things having life. We pass through woods where monkeys are jumping from tree to tree, or chattering at us out of the branches as we ride by. Now and then one hops across the road in front of our elephants, frightening them so that they jump backward, almost throwing us to the

ground. We see wild peacocks walking unconcerned on the roadway. They brush the ground with their wings like so many huge turkey gobblers and spread out their gorgeous tails to the rays of the sun. Along the slopes of the mountains we meet droves of wild hogs, and, not far from Jaipur, skirt a lake on the banks of which half a dozen black crocodiles look like great logs as they lie asleep in the sun.

The tame animals we see on the roadway are quite as strange as the wild ones of the woods. We pass droves of little donkeys no bigger than Newfoundland dogs, so loaded with bags and baskets that only their legs show. Indeed, the loads seem to be walking off by themselves. Their dark-skinned drivers yell at them in Hindustani as they move slowly onward, without either bridle or rein to guide them.

Here comes a stage hauled by a camel. It is filled with black-faced passengers on their way to Jaipur to trade. We pass other camels ridden by men, women, and boys, who with inquiring eyes stare at us as we go by, high up on our elephants. Some of the camel riders are by no means polite, as we learn by a shabby trick which one of them plays upon us. We are several miles from Jaipur and our elephants are rolling along on the trot. It is hot. The flies swarm about us in thousands. They half cover the elephants and so attack our faces that we have to use one hand for fanning, while we hold tight to our saddles with the other.

While so engaged, a long, black-skinned Hindu comes by on a camel. He also is tormented by flies, having so many that they make his white gown look black and fairly cover the skin of his beast. As he draws near us, he takes his whip and gives the camel a cut. The animal runs, and as he passes, the Hindu unwinds his long white turban and

sweeps it back and forth on both sides of the camel. Thereupon, the flies leave him, and attack us and our elephants, while he trots ahead, flyless.

We continue our ride on the elephants to Ambir, an ancient but now ruined capital of the state of Jaipur. Its palaces are deserted and its gardens overgrown with luxuriant weeds. Dismounting from our great beasts, we wander about through buildings of marble, exquisitely carved, visit the prisons once used by the rajahs, and stay a while in a temple to watch some Hindus sacrificing a black goat to Kali, their terrible goddess. After this we have lunch and return to Jaipur. We are so tired by the time we reach our hotel that when our elephants kneel we are glad to crawl down the ladders and go off to bed.

XLVII. ANIMALS WILD AND TAME

ONE seldom thinks of India as one of the great cattle countries of the world. Nevertheless, there are twice as many cattle here as in the United States, notwithstanding the fact that the people do not raise cattle for meat, and make neither butter nor cheese for export. Most of the milk used in India comes from the water buffalo, and from it is made most of the ghee, or liquid butter, used for cooking.

As we have learned, the Hindus and many others consider the cow too sacred to be eaten and think it a crime to kill one. Nevertheless, they do not hesitate to use cattle as work animals and employ millions of them on the farms. Vast numbers act as beasts of burden or pull carts over the roadways, while every farmer has one or more, the cattle of each village being herded by the children.

Some of the Indian cattle are beautiful. They are large and well-formed, certain breeds, like those we saw in the cow temple at Benares, having great humps on their backs. They have long ears hanging down from the sides of their heads, and coats like silk.

Much of the farm work of India is done by water buffaloes, ugly beasts about the size of a large cow or bull, and similar to the carabaos (cä-rä-bä'ōs) we have in the Philippines. We have seen some of them during our travels in southern China and in the Indo-Chinese peninsula, for the water buffalo thrives in the moist lands of the tropics. It must have plenty of water, and some of the farmers bathe their buffaloes twice every day. These animals are valuable in the rice fields and other irrigated regions. As they like the mud, they will wade or swim through it, dragging a plow. They are not so easily tamed as our cattle, and it will not be well for us to anger a bad-tempered one unless we have some quick means of getting away.

India has many sheep and goats, which are bred in the parts of Hindustan having a moderate rainfall. In some places the shepherds wander from place to place with their flocks and sometimes pasture them on the edge of the deserts. The best goats are the long-haired ones found in the foothills of the Himalaya Mountains. The people eat goat's flesh and mutton, and milk both goats and sheep. Many of the goatskins are exported, some being sent to the United States. Indeed, our finest shoes are made of goatskins.

There are many camels in India. They are used for riding animals as well as for beasts of burden. In some places we see the strange sight of one of these ungainly beasts hitched to a plow and shambling sullenly and awkwardly along through the furrow.

R.hinoceros.

It seems strange that a country so thickly populated as India should have wild animals, but on the lower slopes of the Himalaya Mountains and here and there upon the high plateaus of the south are forests and jungles, which are the home of the elephant, and in which roam tigers, panthers, and leopards. Those of us who have read about Mowgli in the "Jungle Books" of Rudyard Kipling have learned much about them.

The jungles are composed of thickets of bamboo, of creeping vines that bind together great forest trees, and of the dense brush found in tropical climates. From these wilds the tigers dash out into the farming districts, carrying off the cattle and attacking men, women, and children. It is estimated that every year one thousand persons are killed by the tigers, and that tens of thousands of cattle are destroyed by wild beasts, including tigers, panthers, and leopards. India has poisonous snakes that in some years kill as many as twenty thousand human beings.

The rhinoceros of the Brahmaputra valley often grows six feet tall, with a great horn on its nose, a foot long. There are crocodiles in the rivers. There are monkeys large and small, and wild dogs that hunt in packs, twenty-five or thirty of them going together. The dogs will follow a deer or a tiger for days and attack it when it is brought to bay. There are also leopards, which can be tamed and trained to hunt other beasts, and many wildcats.

Then, too, there are the wild elephants, still to be found along the base of the Himalayas and in the hilly country not far from Cape Comorin (kŏm′ŏr-ĭn). They live in herds, feeding on grass, bamboos, wild bananas, and the leaves and bark of certain trees. It is against the law to shoot elephants, and whoever captures or injures one without the permission of the government is fined and may be put in

prison. The huge beasts are caught by driving them into stockades, or by running them down with tame elephants ridden by men. Often a herd is driven into a stockade and the hunters go in to catch them. This work is dangerous, for if an angry elephant can get at the hunter, it will jump upon him and kick him backward and forward between its fore and hind feet. It may kneel upon him, or, by means of its trunk and feet, may tear his body limb from limb.

India has many deer and antelope, although the vast antelope herds of the past, which sometimes numbered ten thousand or more, have now disappeared. It has the musk deer, which secretes the musk fat from which comes the perfume of that name.

I wish we could take specimens of the Indian rat family home to show our friends. There are more than one hundred species, some of which are as small as the tiniest mouse, and others as large as cats. The bandicoot, for instance, weighs two or three pounds, and often measures fifteen inches, not counting its tail, which is nearly as long.

There is another animal that can be found in almost any part of Hindustan. It has a yell like the scream of a baby and a jaw so strong that it can crush bones with its teeth. This is the jackal, which looks like a very large fox. It is a sneaking, cowardly beast, which will put its tail between its legs and run at the sight of a man, although it may attack a child. The jackal is the common scavenger of the towns and villages, for it feeds upon dead meat of all kinds, often fighting with the vultures over a carcass.

The cat family is well represented in India, especially the larger cats, such as lions and tigers. There are more tigers than lions. In the zoological garden at Calcutta we are shown ten Bengal tigers, one of which measures twelve feet from the tip of its nose to the end of its tail. It is

fresh from the jungle and is very fierce. As we watch it, the keeper puts some meat inside the cage and then goes away. The great beast pounces upon the meat, and when one of the rash boys of our party pokes his umbrella in through the bars of the cage, the tiger raises its head and springs at us with a roar. It throws itself against the bars so hard that we fear they will break. Our hearts sink, and we start to run. The keeper comes up and warns us that this tiger is a man-eater, having killed one hundred people.

Most tigers, however, are not man-eaters. They live upon deer, antelope, and wild hogs, and also kill cattle, horses, and camels. It is only when hungry that they will attack men; but it is said that having once tasted human flesh, they prefer it to all other food. A single tiger is known to have killed one hundred and twenty-seven human beings. This tiger prowled along one of the chief public roads, stopping all traffic until an English sportsman fired the shot through its neck that caused its death.

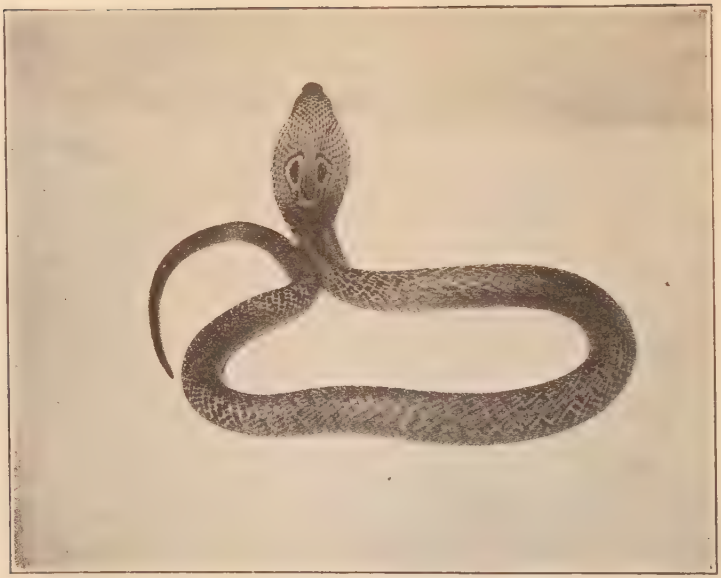
The tiger usually does its hunting at night. It makes its lair in a jungle near a village, or a corral where the cattle are kept. After dark, it creeps out until within a few feet of its victim, and then with a spring seizes it by the throat, often dislocating the neck. In the case of human beings, an old man-eater will sometimes grab a person by the shoulders with its teeth, swing the body about over its back, and trot off into the jungle to devour its living victim at leisure.

The tiger is so strong that it can strike down a cow with a blow of its paw and drag her off with its teeth. Its claws are as white as ivory and almost as hard as steel. They can be covered at will, like those of a cat, and are drawn in while walking that they may not be worn off by rubbing on the ground.

Tigers will usually run from a man rather than face him; but when brought to bay, they will fight until dead. They will even spring upon the backs of elephants in their attempts to get at the hunters who are riding them. Hunters often build platforms in the trees along the path by which a tiger comes to get food or drink, and then lie in wait to shoot the beast as it slips by. A young buffalo or calf is often tied at the foot of such a tree. The tiger pounces upon the animal and is sucking its blood when the hunter above takes aim.

Have you ever heard of the cobra (kō'brə)? It is one of many poisonous snakes, and about the most venomous known to man. Found all over India, it causes many deaths every year. The cobra is not large, seldom growing to a length of more than four feet, although some are known to have been five or six feet long and six inches thick. This snake has a small head which expands in the shape of a hood when it grows angry. It rises on its tail as it strikes, and cannot strike to a distance greater than its own length. Cobras sometimes crawl inside the houses. A story is told of an English lady who was writing at her desk in her Indian home, when suddenly she felt as though somebody was looking at her from behind. She turned around again and again, but there was nothing in sight. Then at last, on the floor, she saw a cobra raising its hood shaped head and about to spring. She jumped upon the table and screamed for the servants, who rushed in and killed the snake.

We shall meet Hindu snake charmers in all of the cities. Among the most skillful jugglers to be found anywhere, they handle snakes as if they were so many pieces of rope. Each juggler is naked except for a white turban and a strip of dirty white cotton wound around his waist. He wears so few clothes that it would seem impossible for him to



A cobra. This snake can expand the skin of its neck to form a sort of hood. The curious spectacle mark is seen on the heads of most cobras.

conceal anything in them, but nevertheless he brings forth from space, as it were, great bunches of snakes.

For instance, a snake charmer at Delhi asks one of us to hold out his hand. He does so and the man lays a piece of brown paper upon it. He then takes up a flute and begins to play, fixing his eyes on the paper. He dances around us for some time, playing all the while, and keeping his weird black eyes on the paper. At last he starts back, pointing to the paper. Our eyes follow his, but we can see nothing. He repeats this action, dancing about more wildly than ever. Finally he drops the flute and begins to sing, still dancing and pointing again and again at the paper.

All at once, as we look, he thrusts out his naked arm, claps his bare hand down upon the paper, and from where it lies snatches up three great cobras. He shakes them, and they squirm and wriggle before our frightened eyes, and raise their hooded heads and dart out their tongues at us. We jump back, for they are within only a few inches of us. Though we see this trick performed again and again, we can never discover how it is done.

1. Who are the Hindus? The Buddhists? The Mohammedans?

2. Tell what you can about Hinduism and the classes or castes of people for which it provides. Make a visit to Benares and describe a boat trip down the Ganges. Visit the Golden Temple and the Monkey Temple, and tell what you see in each.

3. Take a trip through some of the native states of India. How are they governed? What proportion of the country do they comprise?

4. Visit Jaipur and tell what you see. Describe our elephant ride out through the country, mentioning the animals and people we pass on the way. In what other country have we seen elephants? (Read Carpenter's "Africa," and describe the elephants.) For what are elephants valuable?

5. Name some of the domestic animals of India. Why is India, which has twice as many cattle as the United States, not a great meat-exporting country? What is the water buffalo? Mention some of its uses. What American dependency uses many of these beasts? (See Carpenter's "Australia, Our Colonies, and other Islands of the Sea.")

6. Tell what you can about the wild animals of India. Which are the most dangerous to life? Describe them. What is a cobra? Describe the snake charmers.

XLVIII. ABOVE THE CLOUDS

STARTING from Calcutta, we shall now leave the hot lowlands of the Ganges for a trip among the Himalayas,

during which we shall travel on into Tibet, Afghanistan, and other high lands of Asia.

We shall visit the Himalayas first at Darjiling (där-jē′lĭng), a little city situated about a mile and a half above sea level, and under some of the highest of the peaks. The climate there is cold, although it is not very far north of Calcutta. As we ride over the tropical plains on the railroad, we dash into jungles containing great thickets of bamboos, and hundreds of banyan trees which send scores of sprouts from their limbs down into the earth and make the jungle almost impenetrable. There are curious plants, poisonous vines, and great trees forming a vegetation so thick that we can see through the green only a few steps from the train. As we pass through the jungles we may perhaps see the bright eyes of a tiger staring out of the darkness.

At the foot of the mountains we take a little narrow-gauge railroad that carries us up to Darjiling. Its track is only two feet wide, and it curves in and out among the trees like a snake. Our motive power is a small steam engine that takes us upward more than a thousand feet every hour. There are a dozen horseshoe curves to the mile, and so many loops that we cross our own track again and again in making the gradual slope on which we move farther on up into the clouds. At times we skirt precipices covered with green, down which we can look out of the car windows for a thousand feet. We climb along the sides of the mountains above valleys that fade away into the broad plains of Bengal.

We soon leave the jungle and enter a region of huge forest trees, some of which are two hundred feet high. They are clothed with a luxuriant growth of moss and ferns, while orchids of many beautiful colors and shapes are fastened to their trunks or hang down from their branches.

The railroad up the Himalayas winds about in great curves like this.

Farther on we observe the tree fern, whose tall, round trunk is from ten to twenty feet long. It has immense leaves jutting out at the top like the fronds of a palm.

The air is full of moisture, and the vegetation, though not so thick as in the jungle below, is luxuriant. As we rise higher still, the color of the moss on the trees changes from green to frosted silver. It is now somewhat like the Spanish moss of our Southern states. Covering the limbs like a coat, it hangs from the branches in clusters, and turns the woods into a forest of silver-dusted green.

At about a mile above the plains it is much cooler. Here trees similar to those of our American mountains are

growing. In the villages roses are blooming, while on the sides of the hills are tea gardens, much larger than any we saw in Japan.

The tea plant grows wild in parts of the Himalayas. Its natural home is said to be Assam (ăs-săm′), one of the northeastern provinces of India, where travelers say it sometimes reaches the size of a large tree. It is supposed that the plant was taken from there into China, whence it was carried farther on to Japan.

Until within a few years, by far the greater part of the tea of commerce was produced in China and Japan. Now the British have established tea plantations in India, and are raising vast crops of excellent leaves. The tea they produce is shipped to all parts of the world, fully one third of all the tea sent to Europe and the United States being raised here. So much is grown every year that if it were all bought by us it would give fifteen pounds to every family in our country. A great deal is raised in Ceylon, so that India may now be called the most productive of all the tea countries. The United States uses millions of pounds of Indian teas, and the tea our parents are drinking to-day may have been made from the leaves which last year grew on the very bushes now under our eyes.

On our way up the Himalayas we pass a number of villages, and meet queer-looking people at every stop of the train. Among them are the Lepchas (lĕp′*chăz*), whose faces are not unlike those of our North American Indians. They are short and broad chested, with big calves and long arms. They have copper-colored skins and thick, coal-black hair, hanging in long plaits or braids down their backs. Both women and men wear robes of coarse, striped cotton cloth which fall below their knees, leaving their arms free.

During the rainy season, the Lepchas put on high boots

Men and women picking tea in the Himalaya Mountains. India is one of the chief tea-producing countries of the world, and sends us most of that used in the United States.

of deerskin as a protection from the terrible blood-sucking leeches that are then found in the mountains. These leeches will fasten themselves to any part of the body

and have been known to live for days in the jaws, nostrils, and stomachs of human beings, causing dreadful suffering and finally death.

The Lepcha women are fond of ornaments. We see girls who have bracelets of silver covering their arms from their wrists to the elbows. They have heavy rings of gold and silver about their ankles, and flat pieces of gold tied to their ears. Not a few have jeweled buttons fastened in the flesh of their noses.

The Bhutanese (bo͞o-tăn-ēz′), another hill tribe, who look not unlike the Lepchas, dress much the same, except that they paint their faces with a sort of brown varnish. Nearly every Bhutanese woman wears on her person the great part of her fortune. She may have beads of coral and turquoise bound round her head, and earrings of gold so heavy that they pull down the lobes of her ears. Even the poorest have jewelry of brass or stone if they cannot afford silver and gold.

The Himalayan women are strong. We see them digging in the fields and working like men. Little girls go along with big baskets tied to their backs, and the older women thus carry loads of grain and other things, even to the dirt used in fixing the roads. Sometimes a mother has her baby tied to her back. The men of the Himalayas are as strong as the women, although they work less. They carry great knives in their belts and are very fierce looking.

Arriving at Darjiling, we are met at the station by rosy-cheeked girls who offer to take our baggage up to the hotel. We hesitate to let girls act as our beasts of burden, but finally consent, whereupon each maiden picks up a trunk weighing perhaps two hundred pounds and trots off with it up the hill. The charge for the load is an amount equal to about five cents of our money.

Crowd at the station at Darjiling.

We find good hotels at Darjiling, which is a summer resort just far enough up the slopes of the Himalayas to have a delightful climate while the plains below are sweltering in an almost tropical heat. The place has many mountain homes of the richer officials and foreign business men who live in the lowlands. There are beautiful villas and bungalows with wide porches about them, as well as boarding houses and hotels.

Another city much frequented by the British is Simla, situated in the Himalayas hundreds of miles farther west. It is to Simla that the Viceroy and the chief officials go

in the hot season, for which reason it is sometimes called the summer capital of India. It is a gay city during the summer but not in winter, for then it is cold and often covered with snow.

During our stay at Darjiling we journey about through the mountains. We ride out before daybreak to Tiger Hill to watch the sun rise on Mount Everest, and make excursions to visit the tea plantations near by. We go to the market in the center of the town to purchase curios of the natives who come from long distances into this city to trade. We buy odd knives and prayer wheels, and also rings and necklaces set with turquoise and other semi-precious stones. From Darjiling, also, we may visit the small independent kingdom of Nepal (nĕ-pôl′). It is inhabited by various tribes, the ruling race being the Gurkhas, some of whom serve in the British army in India.

In our excursions we now and then stop at a village. The mountaineers live in low huts made of mud and stone, with roofs of straw thatch. The huts are not much larger than store boxes, and but few of them have gardens or yards. We see the women cooking out of doors and watch the families at their meals, all eating with their fingers. Entering the huts, we find but little furniture except some boxes and a few pots and pans. The mountaineers are uncivilized. They are mostly worshipers of Buddha and are in many ways like the Tibetans, the strange people whom we are to visit in the next stage of our travels.

The word "Himalaya" means "the abode of snow," and it is a good name for these mountains, for their tops are crowned with perpetual frost. They are the highest of all mountains and the summit of the tallest of their peaks, Mount Everest, has not yet been reached by man. The top of Mount Everest is farther above sea level than any other

Government House at Simla, where many of the officials spend the hot season.

place upon earth. It is more than twenty-nine thousand feet high—over twice as high as Fujiyama, the sacred snow-capped mountain of Japan, and more than a mile above Aconcagua, the tallest of the Andes. It is almost nine thousand feet above the top of Mount McKinley, the highest peak on the North American continent, and more than ten thousand feet higher than Mt. Elbruz, the highest in Europe.

The Himalayas have scores of peaks which have an altitude far greater than Mont Blanc, and at least forty of these are more than one mile higher than that famous monarch of the Alps. Indeed, it is said that if the whole Alpine range were dropped into some of the valleys of the Himalayas, at ten miles away there would be no perceptible change in the scenery.

We have read much about the glaciers of Switzerland. The Himalayas have moving fields of solid ice from thirty to sixty miles long. One of them, thirty-three miles in length, lies between two mountains, each more than five miles high.

The Himalayas and the Hindu Kush (kōōsh), which is the name of the same chain farther west, extend all along the northern boundary of Hindustan in the shape of a double wall, upholding a wide, irregular trough, or valley. The southern side of this wall rises steeply from the plains to a height of almost four miles. The average width of the plain is about as great as the distance between New York and Washington, while its length is almost equal to that between New York and Denver.

This mighty wall of mountains is called the Father of India. It is intensely cold, and when the warm winds loaded with the moisture of the Indian Ocean strike against it, the moisture condenses and falls as rain, creating the

rivers that feed the vast plains below. Nowhere on earth is there a heavier rainfall than in some parts of the Himalayas. In several places forty or fifty feet of water fall every twelve months.

The great plain of India, which is so level that one can travel it from one side of Hindustan to the other without seeing a hill, is composed of the earth washings brought down by these rivers, so that the Himalayas have really built up the country. The rivers are engaged in a similar work now. The Indus, the Brahmaputra, and the Ganges are loaded with silt, which the irrigating canals spread over the land, making it produce as abundantly as the valley of the Nile, which is coated with somewhat similar soil brought down from Abyssinia.

The scenery of the Himalayas is unlike that of the Rockies, the Andes, or the Alps. These mountains lie almost on the edge of the tropics, and the moisture from the plains and that swept in by the winds from the Indian Ocean gives them a thousand clouds where the Alps have one. As we travel over them, or climb about their rocky recesses, we see masses of vapor of all shapes chasing each other over the hills. At a distance of two miles above the sea, the clouds crawl to our very feet up the steep sides of the valleys. They wrap themselves around us, and for a few moments the mist is so thick that we cannot see the heads of the horses upon which we are riding. A moment later it is quite clear. The clouds have passed onward to lose themselves among the snows higher up.

During our travels in the Himalayas we frequently have clouds both above and below us. Here they nestle in the hollows in the sides of the mountains, looking almost like men who have sat down for a rest. There they appear to have taken the forms of beasts, racing in single file through

the air. In the morning, the sun gilds the clouds so that they become masses of fire; and at night the moon turns them to odd shapes of silver and gold. At daybreak the valleys are so filled with mist that we seem to be standing above an ocean of ice. As we look, the sun rises, kissing the peaks and glorifying the snow with all the colors and tints of the rainbow. We have never in all our travels seen a sight more splendid.

1. Describe the trip from the lowlands of the Ganges to Darjiling. Why does the vegetation change as we rise? What beverage plant do we find at a mile above the sea? Where else does this plant grow? Describe it in Japan. How is it used? (See Carpenter's "How the World is Fed," also "Australia, Our Colonies, and Other Islands of the Sea.")

2. Locate the Himalaya Mountains. Of what value are they to India? Where is Mt. Everest? Compare it in height with the highest mountain of North America; of South America; of Europe; of Japan. Where is Simla? Why do the officials go there in the summer?

XLIX. ON THE ROOF OF THE WORLD

WE have come by airplane from Darjiling into Tibet, and are now on what the Hindus call the roof of the world. Tibet is about one eighth the size of the United States, or nearly equal to ten states the size of Pennsylvania. It is an immense plateau upheld between the Himalayas at the south and other high mountains at the north. Much of it is as high as Pike's Peak, and some of it is two thousand feet higher. The country can be reached by traders only by climbing over passes of from sixteen to nineteen thousand feet, most of which are closed during the seasons of heavy rains and snows. Much of the goods comes in

that way from India and China, sheep, goats, yaks, bullocks, and even men, being the pack animals.

Leaving Darjiling, we rose more than two miles into the air, and soared amid the highest of the Himalayas as we crossed the boundary. We had splendid views of Mount Everest and Kanchanjanga (kän-chŭn-jŭŋ′gä), and later of the wild, thirsty highland over which we flew. We have now landed at Lassa, the capital of Tibet, where we shall make a short stay.

During our flight we landed here and there on the farms and in the towns and villages. We were able also to get a bird's-eye view of the three great sections into which the land may be divided. The first part of our flight was over high mountains and deep valleys, where are the sources of the Brahmaputra and Indus rivers. This is the southern and western portion of the country. At the east of the plateau are other mountains, from which flow the Hwang and the Yangtze, and at the southeast the Mekong and the Irrawaddy. We have seen all these rivers during our travels. The third section, which forms most of the country, is the bleak, dry tableland, from fourteen thousand to seventeen thousand feet high, stretching north, south, east, and west for hundreds of miles.

It was bitterly cold while we were flying. Tibet lies in about the same latitude as Florida, but it is so high that its winters are more like those of Alaska. At that season the mountains are snow clad, and the winds from the Indian Ocean, having dropped their water in India, are almost as dry as the winds of the Sahara and give the plateau a scanty rainfall. There is some rain in the summer, but during the winter the air is so dry that the leaves wither and may be ground to powder between one's fingers, and the timbers of the houses crack and break. Then fresh meat

can be left out of doors for days without spoiling. The air sucks up the juices until the meat can be powdered like bread. As soon as an animal is killed it is dressed and hung up out of doors, where it quickly becomes so dry that it may be kept a long time.

In our trip over the plateau we saw many wild animals—wild sheep and wild goats in the mountains, and wild foxes, hogs, dogs, and bears in the woods, where the country is low. We have seen yaks almost everywhere, some grazing on the high plains, and others acting as beasts of burden, tramping slowly up the mountains with heavy packs of goods of one kind or another. There are also wild yaks in the unsettled parts of the country.

The yak has its home in the Himalayas and Tibet, just as the llama has its home in the Andes of Peru and Bolivia. The animal is about as big as an ox, although not so tall. It has great flat horns and a long flowing tail, a short head and neck, and very short legs. The hump on its shoulders, which reminds us of the cattle of India, is a great bunch of soft fine fur, and the body is covered with a thick coat of long silky hair, much like the fleece of a sheep. The hair is spun into ropes, and the soft fur is woven into cloth. The yak does not low like a cow; it grunts. Tibetans use its milk largely for butter and cheese.

Another strange animal of Tibet is the musk deer, from which comes the perfume called musk. This animal is smaller than any deer we have in America. The musk lies in a little ball of fat enclosed in a sac beneath the skin on the abdomen. The fat is of a chocolate color and looks like fresh gingerbread. When the deer is killed it is taken out, dried, and then shipped over the mountains to India or China, and thence to the United States or Europe for making perfumes.

Tibet is the home of the yak. These animals act as beasts of burden and also furnish the people with butter and cheese.

The Tibetans number about two millions. If you should take the people of the city of Philadelphia and scatter them over ten states the size of Pennsylvania, the whole would have just about as many inhabitants as Tibet. The population is thickest where the tableland is lowest, so that vegetation can grow. This is along the eastern border and near the Chinese frontier. Farther inland the inhabitants grow fewer and fewer, until finally the land is almost an uninhabited desert. The people live largely in villages, or in tents, moving about with their yaks, sheep, and cattle to find pasture. There are but few large towns; Lassa, with a population of about twenty thousand, being the largest.

The Tibetans are an interesting people. They look much like our Indians and remind us of the Mongolians we saw about the Great Wall. They have high cheek bones and copper-colored complexions. The men have no beards to speak of, and everyone carries about a little pair of pincers to pull the hairs out of his face.

Most of the Tibetans are stock breeders, farmers, and traders. They have irrigated patches in the valleys and raise hardy grains. They have mines of gold, salt, and borax, and they carry on some trade with China and India in sheep, musk, furs, wool, and skins. Their principal imports are cotton goods, dyes, grain, sugar, brick tea, and glass beads. The goods are carried over the mountains on the backs of mules, yaks, and sheep.

The Tibetans are a nation of traders, where both men and women go about exchanging their goods. Much of the trade is by barter. For a long time about the only money was bricks of tea such as we saw made in China. Now there is a mint at Lassa, and silver pieces about as big as our quarter of a dollar are in circulation. If

anyone wants a smaller coin, he cuts the large silver piece into halves or quarters, according to the amount desired. Some Indian rupees are also in use.

L. AMONG THE TIBETANS

THE Tibetans are divided into tribes, each of which has its own customs, although all dress much alike. They have gowns reaching from the neck to the ankles and tied in at the waist with girdles of wool. In the winter they wear either sheepskins with the wool turned inward, or so many furs that it is hard to tell where the furs end and the body begins. The summer clothing consists of native woolen cloth. Both sexes are fond of bright colors, especially reds, purples, and blues. They wear boots of red or yellow leather, held up by garters attached to the tops.

The Tibetans of the north have pointed caps of cloth, silk, or felt, trimmed with lambskin. These caps may be green, red, or blue. In some sections of the country the men wear high hats shaped much like the Korean gentleman's, but with a broader brim and a larger crown. The brim is often faced with red silk. The hat is tied on by a string under the chin.

Both men and women are fond of jewelry, and it is a poor man who has not earrings of turquoise, silver bracelets, a thumb ring made of bone, and perhaps a prayer wheel inlaid with turquoise. The women are loaded with jewelry. They wear pieces of coral and amber around their heads, and huge earrings of gold and silver set with turquoise. Many of them have rosaries, and nearly all have ornaments of turquoise and coral. They like the blue turquoise because,

they say, it is a charm against the evil eye and if one is wearing a turquoise, the evil spirits and witches cannot attack him.

Some of the Tibetans have tents made of the coarse hair of the yak, and others rude homes of wood or stone laid in clay mortar. Most of the people live in villages.

In the larger places, like Lassa, we find some houses of three stories, the homes of the rich. They are built around a court, and one house may contain a number of rooms. The poor man's house is seldom of more than two stories, with a courtyard in front of or behind it. The ground floor is sometimes used as a stable. Except for holes in the walls covered with greased paper, there are no windows in the houses. Fireplaces are used for cooking, but there are no chimneys. The principal fuel is dried yak manure, which is so scarce that the cooking fires are expected to keep the house warm.

The food of the Tibetans is largely barley, wheat, beans, and peas, crushed or ground into a meal and cooked as a mush or in cakes. The people are fond of raw meat, seldom serving their meats more than half cooked. They eat the flesh of yaks, camels, and hogs; and, like most people of cold climates, are especially fond of fats. A favorite dish is a soup of brick tea, butter, and water, cooked into a thick, fatty broth. After this mixture has been taken from the fire, some barley meal is added and the mixture is churned in a little tea churn. The broth, which has now become a thick mush, is ladled out in bowls and the people knead it into balls with their fingers before eating it. Both men and women are fond of tobacco, which they carry about in horn boxes much like the powder-horns of our colonial days. All the men smoke except the priests, who, like the women, take snuff.

These people are very religious. They are Buddhists, and are ruled largely by the Buddhist priests, or lamas, of whom the land has many thousands. About one third of the population of Lassa is made up of priests. At the head is the Grand Lama, who dwells in the Potala, a temple just outside the city. He is usually a boy, who is supposed to have the spirit of Buddha within him.

The Tibetans spend a great deal of their time praying to Buddha, and they have machines of various kinds to multiply their prayers. One of these is the prayer wheel, a cylindrical tin or brass box that whirls round a stick or pin stuck through its center. A number of prayers are written upon a strip of paper, which is wrapped around the stick inside the box. As the man rubs the stick between his palms, the paper whirls, and he believes that at every turn of the wheel he will have the credit of making as many prayers as there are on the paper. Some large prayer wheels are turned by the wind, or by the waters of a fast-flowing stream. In such cases one has only to pull out a peg, and the wind or water prays for him, wiping away sin after sin, as the Tibetans think, as long as the water flows or the wind continues to blow. Nearly all education is confined to the priesthood, and the Tibetan books are almost altogether religious ones.

Among the queer customs of this country are those relating to marriage. Instead of having several wives, as is common in some Asiatic countries, the man of Tibet has only a part of one wife. When a girl marries, she often becomes the wife of her husband's brothers as well, or she may marry one or two extra men, so that she has four or five husbands. In such cases she is regarded as the head of the family and does most of its labor. She cooks, weaves, and knits, and also works in the fields. It makes one think

Tibetan women. They do more work than the men.

of the swarm of honey bees, where the drones, or males, are the loafers. In the towns nearly all the shops are kept by women, and woman is the bread earner as well as the bread maker. Nevertheless, she does not think her fate a hard one; indeed, a rich Tibetan lady of Lassa once said that she pitied the women of other countries who were so poor that each could have only one husband.

Lassa is the center of the religion, government, and trade of Tibet. Until recently no foreigners were admitted to Lassa and the only strangers were Tibetans from other parts of the country who came to this holy city as the Hindus go to Benares. Even to-day it is difficult for strangers to obtain permission to enter Lassa. From our airplanes we can see how the capital looks. It lies at an altitude of over eleven thousand feet above the sea, in a plain called the Plain of Milk, which we think should be named the plain of water and mud, for it is surrounded by swamps. The city is reached only by a roadway built through them. We have great trouble in finding a dry place on which to land with our airplanes. The plain is about fifteen miles long and from two to five miles wide. There are great mountains about it, the peaks of which even in midsummer are covered with snow. As to the city itself, it is the second highest capital of the world, being surpassed by La Paz, Bolivia, by a thousand feet and being far above Quito, in Ecuador, or Bogotá, in Colombia. It is almost a mile higher than Mexico City and about a mile and a half above Denver.

Lassa is a city of palaces and hovels. There are many rude one-story and two-story buildings of stone cemented together with clay, and larger ones of granite, solidly built. Some of the homes of the priests have roofs washed with gold. Many of the buildings have prayer flags upon them.

About two thirds of a mile from Lassa is the Potala, the great temple home of the Grand Lama. This is a group of buildings which looks like a fortification. It stands on a rocky hill, rising above it higher than any church steeple. It is nine hundred feet long, and has enough rooms to house hundreds of the Grand Lama's servants and about five hundred monks. The Grand Lama lives in the center of the temple. He is so sacred that he is seldom seen by any one but his servants and priests, most of whom get down on their knees when they enter his presence.

At the time of the revolution which made China a republic, the Tibetans drove out the Chinese soldiers who were stationed there. The country is still, however, a dependency of China, and we meet many Chinese merchants and traders.

1. Locate Tibet. Why is it called the roof of the world? Compare the Tibet plateau in height with that of the Rocky Mountains; with the plateau of Bolivia; with the Pamir.

2. Tibet is in about the same latitude as Florida. Why is Tibet so cold, while Florida is so warm?

3. What is the capital of Tibet? Compare it in height and climate with other lofty capitals. (See Carpenter's "South America.")

4. What domestic animal is peculiar to Tibet and the Himalayas? Describe it. What domestic animal is peculiar to the Andes? (See Carpenter's "South America.") Where do we get musk? For what is it used?

5. Who are the Tibetans? Compare them in numbers with the Chinese; with the East Indians. Compare them in appearance with our North American Indians.

6. What is the religion of Tibet? What other countries have we visited where this religion is practiced? Who is the Grand Lama? What is the Potala? Of what country is Tibet a dependency?

7. Make a trip over Tibet describing the food, shelter, clothing, and some curious customs of the people.

8. What are the chief imports and exports? How are they transported over the mountains? What kinds of money are used?

LI. AFGHANISTAN

WE have left Lassa by airplane, flying west, and are now high in the air above Afghanistan (ăf-găn-ĭ-stăn'). We are still in the Himalayas, some of the peaks among which we are flying being four or five miles above the level of the Indian Ocean, far off to the south. The mountains are snow covered, and great glaciers hang to their sides. Much of the country is rainless and dry. There are few trees, and we often see little deserts, covered with rocks. In the foothills are many irrigated patches and there are orchards of fruit trees on the slopes. Over the fields is a network of ditches, while at times we fly above valleys through which great streams of mountain water flow, feeding the crops. These regions are well populated and have many villages. In the largest and most fertile of them is Kabul (kä'bo͞ol), the capital of Afghanistan. We slow down as we enter the green valley where the city lies, finding a good landing place on a level spot in the outskirts.

As we climb out of our machines we have in our hands a permit to enter the country from the Ameer, or king, and a letter saying that he will be glad to have us learn all about Afghanistan and its people. No one may come into Afghanistan without such a permit. The land is forbidden to foreigners, so that any traveler who might try to sneak through would be in danger of death.

But first let us see just what place Afghanistan occupies in the continent of Asia. The country is almost as large as Texas, or more than five times as big as the state of New York. From northwest to southeast it is as long as from Philadelphia to Detroit, and its width is about equal to the distance between Boston and Pittsburgh. Its location is important. It lies between India and Baluchistan

(bȧ-lo͞o-chĭ-stän′), belonging to Great Britain, on the south, and the Turkoman and Uzbek republics, parts of Russia, on the north. Afghanistan is a sort of a buffer state separating India from Russia. As the British have been a little doubtful of the Russians they have discouraged the building of railroads, so that, although the railways come to the borders of Afghanistan on both sides, they do not go through it. A railway of five hundred miles across Afghanistan would enable one to go on the cars from Calcutta to the Caspian Sea, and a little additional track would connect India and the rest of southern Asia with Europe. As it is, the only way for trade to come in is on horses and camels, and in the caravans guarded by soldiers. The chief route from India is through the narrow Khaibar (kī′bȧr) Pass, near the town of Peshawar (pĕ-shä′wȧr), and north of Lahore, which we visited in our travels in Hindustan. From this pass to Kabul is one hundred and eighty miles. The Ameer is making arrangements for an automobile service between the two cities, and may put on motor trucks to carry the freight. From the north one may come into the country by way of Herat (hĕr-ät′), not far from a railway which goes to the Caspian Sea, while there is a third route via Kandahar (kŭn′dȧ-hȧr), which is near to the railways of Baluchistan. These three cities, Kabul, Herat, and Kandahar, are the largest in Afghanistan. Kabul has about one hundred and forty thousand, Kandahar, thirty thousand, and Herat twenty thousand inhabitants.

But who are the Afghans? The people about us have straight eyes and light-brown complexions. Some of them have rosy cheeks, and not a few long silky beards. They are different from the Tibetans, and from most of the people we saw in Hindustan. We are told that they are descended from the same race as our own, the Caucasian.

Kabul, the capital of Afghanistan.

We ask about the population and are told that it numbers about six million, all Mohammedans. The Ameer, who is their absolute ruler, has a title which means "King of the Afghans and Light of the Religion and Faith." He has an army of one hundred thousand men, soldiers noted for their bravery. He will probably give us an escort if we wish to make trips through the country.

We find Kabul interesting. It is nearly two thousand feet higher than Denver and lies on the banks of a river flowing out of a gorge in the Himalaya Mountains, which are here fourteen thousand feet above the city itself. Kabul consists of a mass of one-, two-, and three-story flat-roofed houses of sun-dried bricks, with the palaces of the Ameer and his officials rising above them here and there. There are some factories in the outskirts, including an electric-light plant and one for making guns and munitions of war. There is a shoe-and-leather factory, besides several small mills. Manufacturing is costly, for there is so little coal that the only fuel for steam-making is wood.

The streets are poor, and the donkeys, horses, mules, and camels which move through them raise clouds of dust. Most of the houses have windows in the upper story only, with great doors below, opening in the middle like those of a barn. The bazaars remind us of India, the streets being roofed to keep out the sun. The main roads run out from the bazaars in four directions.

During our stay in Kabul we meet all classes of people, of many different tribes, each of which may have its own costume. The men wear turbans and gowns, and nearly everyone in from the country carries a gun or a sword. Some of the hillmen wear skull caps on their heads and a loose vest coming to the knees and caught in at the waist by a sash. Below the vest are baggy cotton drawers

Afghan soldiers.

ending at the calves. On their feet are leather sandals with high curving toes.

The middle-class men and boys of Kabul wear what look like pajamas, gathered in at the waist and falling from there to the ankles in folds. They may have shoes without stockings, and, if well-to-do, vests of velvet or cloth embroidered with gold with loose robes over them. The men of the upper classes and the rich are even more gorgeously attired. The Ameer appears on state occasions in a scarlet coat embroidered with gold lace, and white trousers and white gloves. On his coat are gold shoulder straps set with diamonds, and on his high fur cap is a large diamond star. A gold belt set with jewels, holding his sword, encircles his waist.

After the custom in Mohammedan lands the women we see on the street are so hidden by their clothes that we

can tell little about them. Their costume is a great skirt gathered in at the top and sewed on to a cap. This is put on over the head and covers the face, with the exception of tiny squares of drawn work set in a linen band in front of the eyes. The woman looks through these squares as she goes through the streets. Under the skirt are a long coat and full trousers. The richer women have gold thread on their caps. The hair is parted in the middle and done up in tiny braids which are caught in a black silk bag underneath the gold cap. A large veil of fine muslin may fall from the head. But this kind of clothing is worn only by the rich. Most of the people are poor and oppressed, and the nation is divided up into classes much like those of Europe in feudal times. Civilization is far more backward than in India, China, or Japan.

We are told that the Afghans are engaged chiefly in fruit raising, farming, and stock breeding. They have camels, ponies, and donkeys, and fine sheep with fat tails. The people use the fat in the tail in place of butter or ghee.

The fruit of Afghanistan is abundant and of many kinds, including apples, peaches, pears, apricots, quinces, cherries, and figs. There is also a sweet melon known as sarda, which when ripe will keep four or five months. The seeds of this melon have been sent to California, where it is now grown in large quantities.

Much of the farming of Afghanistan is done by irrigation, and in many places they have two harvests a year. Wheat and barley are sown in the fall and reaped in the summer, while rice, millet, and Indian corn are sown in the late spring and reaped in the fall. The castor bean from which the "oil of sorrow" is made is also grown. We can easily get all the castor oil we may need for medicine. We use it also for lubricating the engines of our planes.

Afghanistan makes fine rugs and carpets, and beautiful cloths of silk and wool for export, and turns out cloth, boots, and shoes for the army. The manufacture of sheepskin coats is an important industry. The imports consist largely of cotton goods, indigo and dyestuffs, as well as sugar, tea, and some coal oil. The trade of Afghanistan amounts to about fifteen million dollars a year.

1. Why is Afghanistan important to India and Russia? Compare it in size with some of our American states. Take an airplane view of the country and tell what you see.

2. Locate Kabul; Herat; Kandahar. Suppose you were ordered to go to-morrow to Kabul, entering the country via India, at what port would you land? What part of the journey would you make by rail? Through what famous pass would you travel?

3. Describe Kabul and its people. Compare it with Denver.

4. Who are the Afghans? How many are there of them? What is their religion? How are they governed?

5. Mention some of the chief products of Afghanistan. What are its chief exports and imports?

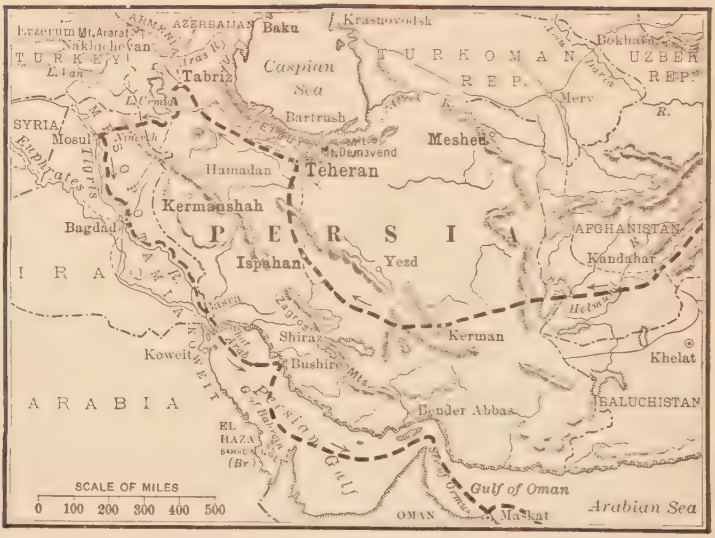
LII. PERSIA—GENERAL VIEW

LET us take a map of Asia as we sit here in Kabul and see how we can reach the next country we are to explore. This is the kingdom of Persia, which lies on the plateau of Iran between Afghanistan and Mesopotamia. It is bounded on the north by the Caspian Sea and the countries which were formerly Russian, and on the south by the Arabian Sea and the Persian Gulf. The country lies in about the same latitude as our Atlantic Coast states from New York to Key West. It is longer than from the Gulf of Mexico to our Canadian boundary, and about as wide as from Philadelphia to Chicago. It is almost ten times as large as Missouri.

THE COUNTRIES
OF
SOUTHWESTERN ASIA
SCALE OF MILES
0 100 200 300 400 500
Longitude 40 East from 50 Greenwich
L.L. POATES ENG. CO., N.Y.
RUSSIA
KAZAK Steppes
Lake Aral
TURKESTAN
Khiva
UZBEK REP.
TURKOMAN REP.
Merv
Meshed
Kushk
Herat
AFGHANISTAN
BALUCHISTAN
PERSIA
Ispahan
Yezd
Kerman
Shiraz
Bushire
TEHERAN
Tabriz
Baku
Kra-novodsk
Caucasus Mts.
BLACK SEA
Constantinople
Bosporus
Trebizond
GEORGIA
ARMENIA
Mt. Ararat
L. Van
Erzerum
Brusa
Smyrna
Kaisariyeh
ASIA MINOR
Mt. Demavend
CASPIAN SEA
CYPRUS
Aleppo
Beirut
Damascus
Baghdad
IRAQ
Kuma
Jerusalem
Jaffa
PALESTINE
Port Said
TRANS-JORDAN
Ismailia
Suez
CAIRO
Mt. Sinai
NEFUD DESERT
Teimi
Kuweit
PERSIAN GULF
EL HASA
NEJD
Medina
Riad
TROPIC OF CANCER
BAHREIN IS. (Br.)
Strait of Ormus
GULF OF OMAN
MASKAT
Ras-el Had
ARABIA
DAHNA
Jidda
Mecca
ASIR
DESERT
HADRAMAUT
KURIA MURIA IS. (Br.)
ARABIAN SEA
RED SEA
NILE R.
Sana
YEMEN
Mocha
Aden
Bab el Mandeb
GULF OF ADEN
SOKATRA I.
Cape Guardaful
INDIAN OCEAN

How shall we get there? We might go by caravan from Kabul to Herat, and thence to Kushk at the end of the railway that crosses Russian Turkestan to Krasnovodsk (krȧs-nô-vŏtsk′) on the Caspian Sea. We could sail on the Caspian to a port on the south coast and there take camels for Teheran (tĕ-h'rän′), the capital, which is only a week or more distant. Or we might go on to Baku (bȧ-kōō′), where the Caucasus Mountains meet the Caspian Sea, and there get the Trans-Caucasus Railway, which has a branch going about ninety-three miles south to Tabriz (tȧ-brēz′), the chief commercial city. Both of these trips would be long and difficult. Better perhaps, we might go from here to Kandahar, and thence make our way west into Persia. Or, if the Ameer will send us to the Khaibar Pass in one of the fifty automobiles he keeps for his pleasure, we can get trains at Peshawar, which will take us to Bombay or Karachi (kȧ-rä′chē) on the Indian Ocean, whence there are regular sailings through the Strait of Ormuz (ôr′mŭz) to Bushire (bōō-shēr′), Persia's chief seaport, on the Persian Gulf. Any of these trips would be interesting, but as we are pressed for time we conclude to stick to our airplanes and fly across country, as we have done in Afghanistan and Tibet.

We are soon high in the air, soaring over the great mountain chains which cut Afghanistan this way and that. Passing over Kandahar, we are a few hours later in Persia and are moving about above a high plateau which is nearly level except where the mountains cut through it. Now we pass over salt lakes and travel over deserts as stony and dry as Gobi or the Sahara. Soaring above the city of Kerman (kĕr-män′), we ride for five hundred miles across the great sand desert and the great salt desert, two of the most dreary regions on earth. Each has salt swamps and



How we travel through Persia.

salt lakes. Under the great salt desert is a thick bed of rock salt, half as large as the state of Rhode Island.

Crossing mountains now and then in our flight, we go north to Teheran, the capital. The plateau is from half a mile to a mile above the sea, with mountains rising here and there two miles above it. The volcano Demavend (dĕm-ȧ-vĕnd′), which can be seen from the city, is higher than any mountain under the American flag except Mount McKinley, and is the highest mountain in Persia. The lowlands are along the Caspian Sea and the Persian Gulf.

Almost the whole of Persia is dry. Four fifths of the scanty rainfall never reaches the ocean, but is lost in the inland seas or lakes, or the sands. The country is intensely cold in the winter and intensely hot in the summer. Most

of the farms are little irrigated tracts which produce grain, rice, tobacco, and cotton. The cotton plant thrives to an altitude of a mile above the sea, wherever there is water. About one hundred thousand bales are annually exported to Bombay and Marseille. Persia is famous for its fruits. It is said to grow the best melons of the world, and great quantities of dates are produced in the lowlands along the Persian Gulf. Apples, pears, and grapes are abundant, and history says that Persia is the home of the peach. There are also large mulberry orchards, and raw silk, silk cocoons, and silk stuffs are exported.

Persia is a treasure vault of minerals. It produces quantities of petroleum and has beds of coal, tin, iron, copper, and lead. With the exception of petroleum, none of these important mineral resources have been much developed in the past.

The people of Persia are Aryans (ār′yănz), belonging to the same race as our own. History tells us that they were at one time the strongest nation of the world. Under their kings, Cyrus, Darius, and Xerxes (zŭrk′zēz), they overran western Asia and a part of southern Europe, bringing a vast empire under their rule. The Persians are now very backward and number only eight or ten millions. Their chief cities, Teheran and Tabriz, have only about two hundred thousand each, while there are only half a dozen other cities of over fifty thousand population. These are Ispahan (ĭs-pȧ-hän′), Meshed (mĕsh-hĕd′), and Kerman, each with a population of about eighty thousand, and Barfrush (bär-frōōsh′), Kermanshah (kĕr-män-shä′), and Shiraz (shē-räz′), which are smaller. Most of the people live in towns or villages, the rest being nomads, who travel over the desert with their camels, horses, and sheep, seeking the best feeding places.

The Persians are mostly Mohammedans, although there are a few thousand Parsis, or fire worshipers, such as we saw in Bombay, and a considerable number of Jews. Among the Mohammedans are Kurds (kōōrdz), Arabs, and Turks.

At times during our travels we send our airplanes ahead and join caravans which are moving slowly over the country, now stopping in the tents of the nomads, now visiting a village, and at times spending a week or more in a city. The people, who are not unlike the Afghans, have light-brown or yellow faces, straight eyes, and dark hair. Most of the men are bearded and have their heads shaved. They wear great high caps of fur or sheepskin, or turbans, and long gowns which are tied in at their waists and fall almost to their feet. Under their gowns they have on full pantaloons. In the winter many are clad in sheepskins and furs. In the cities the men of the richer classes have fine turbans and gowns, some of which are embroidered.

We see comparatively few women, for Mohammedan women are not supposed to be seen by men other than their husbands. The women's quarters are in the back of the house. When the Persian woman comes out she is clad from crown to toe in a long black or blue gown with a strip of white cloth at the front. This strip is fastened at the forehead and extends almost to the ground. At the top of it, just in front of the eyes, is a window of fine lace through which the wearer can see as she walks. Indoors the women wear divided skirts reaching to their knees and loose-fitting sacks with long sleeves. Only the girls of our party are permitted to enter the women's quarters, while the boys are expected to do as men visitors do in Persia; stop at the door and shout out some such words as "Women away," so as to give the girls a chance to fly to their own quarters before the male callers enter.

The woman on the camel is wrapped in shawls, so no men will see her face.

LIII. PERSIAN CITIES AND VILLAGES

DURING our caravan travels we visit some of the villages. They are found mostly in the irrigated parts of the country. The villages are usually square, consisting of dark, narrow streets lined with houses built of stone or sun-dried brick, each standing in a yard surrounded by high walls. The almost flat roofs are made by laying timbers

on the mud walls and covering the timbers with brush, upon which is put a layer of mud mixed with straw. Since every summer a fresh coat of mud is spread on, many of the roofs are a foot thick. The better houses are often covered with stucco and painted. In the larger ones the people sit and chat on the roofs.

The home of the poor Persian has but little furniture. The floor is the ground, well pounded down, with matting spread over it, and sometimes over the matting are beautiful rugs. In most of the homes the floors serve as tables and chairs. The people sleep there at night, using no sheets, and covering themselves with thick quilts. In the daytime the bedding is rolled up and put away in a corner.

The cooking is done upon fires out of doors, or in fireplaces. The Persians eat with their fingers. The plates of the poorer classes are sometimes thin cakes of bread two feet long, a foot wide, and as thick as a lead pencil. When one is through with the rest of his food, he may eat up his plate. During the meal he tears off bits of it, and by bending them in half, uses them as pincers to convey the meat from the soup to his mouth. This bread has many uses. It can be rolled up and carried under one's arm; when it rains it can be put over one's hat, when the sun shines too hot it can be used to shield one's head from the heat. It may be used also as a shawl when it is cold. The diet of the common people is largely made up of bread, cheese, and milk, with a little soup or meat in the form of a stew once a day. They drink a great deal of tea and some coffee.

Outside each village are threshing floors, where the ground has been pounded until it is as hard as stone. To thresh out the grain, oxen are driven over the wheat or barley spread on this floor. Then the farmers take their

Oxen treading out grain. This ancient way of threshing is still used in Persia.

wooden pitchforks and toss the grain into the air until the chaff has all blown away. The straw is kept for stock feeding. The farmers hardly believe us when we tell them of our steam reapers and threshers.

The sheep here are of the fat-tailed variety, many of which we have seen in our travels through Asia. From their long wool are woven beautiful cloths and the finest of rugs. Persia has also donkeys, camels, and ponies, and horses as fleet as those of Arabia.

Let us take a look at some of the cities of Persia. We shall first visit Teheran, situated in the northern part of the country not far from Demavend, whose snow-clad peak rises eighteen thousand five hundred feet. It is on a fine military road which runs west to Kermanshah and Mesopotamia.

Though Teheran has some fine houses, most of the buildings are of sun-burnt brick. They are surrounded by

walls built close to the edges of narrow streets, through which run canals. There are also many mosques with egg-shaped domes faced with tiles of bright blue, and numbers of large buildings devoted to the officials of the government and the colleges and schools.

As Teheran is the capital of Persia, it is here that the Shah (shä) has his palaces and rules with his Cabinet. Some years ago a parliament was established, but its reign of actual lawmaking was short, and now most of the government is through the cabinet ministers.

The kingdom is divided into thirty-three provinces, each of which has several districts. There are governors over the provinces and lieutenant governors over the districts, while every town has its mayor.

Besides the people so governed, there are several hundred thousand nomads living in tents and moving about with their flocks from place to place. They are divided into tribes, each of which has its chief, who collects the taxes and pays them to the general government.

We are told that Persia is rapidly improving. Formerly its only schools were those connected with the mosques, the teachers being the Mohammedan sheiks (shēks), who taught the children little more than to read the Koran and perhaps how to write. While this is still true of some parts of Persia, the government is establishing new schools which teach the same subjects as ours and in some of which the children learn English. A number of newspapers are being published and many movements have been started to develop the country. Caravan and wagon roads are being laid out to connect the chief cities. In time will come railroads.

Leaving Teheran, we visit the city of Tabriz, the chief business center. It lies in northeastern Persia, not very

Water carrier in a Persian city.

far from Mount Ararat, where it is said Noah's Ark rested after the flood. One can go from here to Europe by rail, for a railroad eighty-five miles long connects Tabriz with Julfa, on the line which crosses Russian Turkestan to the Caspian Sea.

Tabriz is made up of a vast number of one-story and two-story structures, with larger buildings scattered here and there through it. The streets are so narrow that we are often crowded against the walls to keep out of the way of the donkeys and camels which, with great loads on their backs, are continually passing through, this way and that.

We spend some time in the bazaars. They consist of little shops, built along both sides of streets so roofed that the sun cannot come in. As in India, each merchant sits cross-legged in a little cell walled with goods, with other goods piled around him. The customers stand and haggle in the street, for there are no fixed prices. The man charges what he thinks he can get, and as the buyer offers much less, it requires a long time to buy anything.

Howbeit, many of the articles sold are of considerable value, especially the rugs for which the country has always been famous. The ancient Greeks bought Persian carpets, and during the Middle Ages they were carried to Venice and over the Alps into northern Europe. Some Persian shawls are worth hundreds of dollars. There are many rugs made in Tabriz. In one factory we see a thousand boys weaving them in all sizes and of different designs. The boys are paid only a few cents a day. We visit also many smaller factories, and find rug making going on in most of the villages. The rugs are all woven by hand, some requiring months of continuous labor. A single rug is sometimes worth thousands of dollars. In many

Persian women weaving rugs.

other cities rugs and carpets are woven, those of Kermanshah being largely exported. Many Persian rugs are shipped to America.

1. Show on the map the routes by which we might go from Afghanistan to Persia. Bound Persia. Compare it in size with your own state; with the United States; with Afghanistan; with China Proper.

2. Describe the surface of the country; the climate. Name the two great deserts. Where are the lowlands?

3. What are the products of Persia? Its chief minerals? Name some things which are produced in both Persia and the United States.

4. Who are the Persians? What is their chief religion? How many followers of this religion are there in the world? Where else have we seen them in our travels? Have we any under the American flag? Where?

5. Visit a Persian village and tell what you see. Describe the home of a peasant.

6. Describe your journey through Teheran and Tabriz. What famous mountain is near Tabriz? How high is it? What is said to have happened there? What high mountain is near Teheran?

7. What product of Persia is used on the floors of some American homes? Trace a shipment of such goods from Bushire to New York via Suez; from Tabriz by rail to the Black Sea and thence via Constantinople to New York by water.

LIV. IRAQ (MESOPOTAMIA)

WE have come from Tabriz westward into Īraq or Mesopotamia, the great region lying between the Persian plateau and the Arabian desert, and stretching from the highlands of eastern Turkey to the Persian Gulf. A territory almost as large as Montana, it includes the rich plains along the Tigris (tī′grĭs) and Euphrates (ū-frā′tēz). It is populated by Arabs and other strange races, numbering all told not many more than the people of Philadelphia.

Having traveled in our caravans over the mountains from Tabriz to the Tigris, we are now in Mosul (mō-sōōl′), not far from where the city of Nineveh once stood. We are in one of the oldest countries of history, in a region which is often called the "cradle of the human race." In southern Mesopotamia, near Kurns, where the Tigris and Euphrates join and flow in a wide stream out to the Persian Gulf, the Garden of Eden is said to have been located. According to the Arabs, there Adam and Eve lived, while somewhere about here Noah and his family dwelt before the great floods came and dropped them down upon Mount Ararat.

It was in Mesopotamia that the Tower of Babel was begun, and here was situated Babylon, where Nebuchadnezzar and Belshazzar had their capital, where Daniel

was cast into the lion's den, and where Shadrach, Meshach, and Abednego walked through the fiery furnace unharmed. Many centuries later Mesopotamia came into the hands of the Turks, and its capital, Bagdad (bäg-däd′), was the home of the famous caliph, Harun-al-Rashid (hä-rōōn′ är-rä-shēd′), whom we know so well from the stories of the Arabian Nights. That city is said to have had then as many people as the whole country has now, while the land between the Tigris and the Euphrates was covered with irrigated farms supporting many million inhabitants. To-day most of the old irrigation works have disappeared, and the only cultivated regions are close to the rivers. Owing to the misrule of the Turks, the land has turned again into a desert, towns and cities have dwindled, and the people are miserably poor.

Our line of travel through Mesopotamia.

The control of Mesopotamia was one of the causes of the World War. The country belonged to Turkey, but the Germans, who coveted its trade and its possibilities of

development, hoped to make it as prosperous as it was in the past. They had partially built a railway from Constantinople to Bagdad and it looked as though they might create an empire here, close to India. As this was against the desires of the British, who, as we have seen, have such large interests in India, it probably influenced them in joining with the French in fighting the Germans.

Since the close of the World War, when Mesopotamia was placed under the rule of Great Britain, a great change has been taking place in the country. Modern civilization is being introduced, irrigation works are planned to bring under cultivation the vast tracts formerly farmed, railways are building, and the region may possibly regain the riches and population it had in the past.

We find many British in Mosul, and shall meet British soldiers and British officials in Bagdad and in our travels throughout the country. Our chief interest, however, lies in the natives. In Mosul there are many Kurds and Armenians, who come down from the north, mixed with the dark-faced Arabs who comprise the chief population. The people dress and look not unlike the Persians, and their houses are much the same.

Mosul is surrounded by wells and has narrow streets with bazaars that remind us of Tabriz. Here and there we see people making rugs and weaving silk, cotton, and wool. In the past this city was noted for its fine cottons, which were carried by caravan to Europe and sold there as muslins. Indeed, it is said the word "muslin" comes from Mosul.

We are anxious to get to Bagdad, the city of the Arabian Nights, and we decide to go there by river. Our steamer makes its way in and out among rafts of poles tied together, supporting platforms covered with

Kufas, on the river near Bagdad. Boats like these are pictured on old Assyrian monuments.

mats and resting upon inflated goatskins. The rafts are loaded with passengers, some of whom are carrying cotton, wool, pottery, grains, and skins, to Bagdad for sale. There are also kufas, round bowllike boats made of woven willows, which are really huge baskets coated with pitch. They have been in use since the days of Nebuchadnezzar. We see more and more kufas as we approach Bagdad and come to anchor among many strange crafts.

There are soldiers on the banks of the river and guarding the gateways in the walls of the city. We show our passports and are allowed to enter and make our way to the hotel.

We find Bagdad interesting. It is surrounded by orange groves, there are palm trees in the gardens, and all the characters of the Arabian Nights seem to be moving about under our eyes. There are crowds of men in turbans and gowns walking back and forth in the streets, and men and boys riding donkeys and camels and mules. The Arabs and Kurds have ropes around their heads holding shawls that cover the hair and fall down on their backs, protecting their necks from the sun. The boys are dressed in blue gowns from their necks to their feet and wear tight little skullcaps on their heads. Some of the richer boys wear fez caps, while a very few are clad as we are. We see many women covered with cloaks, which hide all the person except a narrow space at the eyes. We see richly dressed boys that remind us of Aladdin after he had got his wonderful lamp, and sailors that recall the adventures of Sindbad. We pass a glass peddler, who makes us think of Alnaschar, and an oil merchant, who reminds us of Ali Baba and the forty thieves.

The bazaars and their shops are like those we have seen already in India and Persia. Each kind of wares has

A tinsmith's shop in Bagdad.

its own quarter, and all sorts of business are going on. Our guides go ahead of us, yelling "Barlack! Barlack!" which means "Get out of the way!" for we are crowded to the walls by camels bringing in goods, and by porters carrying great loads on their backs. We stop a moment at the copper bazaar. Here scores of men are hammering on brassware and the noise is deafening. Some of them are making trays as big as a bicycle wheel, and others are carving and polishing kettles and pots, which shine like gold.

We see many mosques, but as the Mohammedans do not like Christians to go into their churches we are not allowed to enter them.

Stopping in a coffee house, where delicious Turkish coffee is served us in cups without handles, we watch a juggler swallow a sword and then pitch eggs into the air, tossing them up and catching them without breaking them. Another juggler picks a live toad out of his turban, while a third has trick snakes which remind us of the snake charmers of India.

How hot it is! We dare not go out in the sun at midday, for it is now midsummer and many of the people stay in the cellars under the houses to keep cool in the daytime, and sleep on the flat roofs at night. They visit and chat on the roofs, where they often give parties with music and dancing.

Mesopotamia is one of the hot lands of the world, and the heat is often aggravated by the great sand storms from the Arabian desert which roar through the streets. After such storms the people water the mats on their roofs to cool them off before they lie down.

During our stay in Bagdad we meet the British officials, who go about with us and show us the country and tell us

Children in a Mesopotamian village.

what England hopes to do for the people. When we visit the oil regions and see what quantities of petroleum they are taking out, we wonder whether they may not compete with the trade of our oil companies in this part of Asia. They show us that the cotton plantations are increasing in number. This soil grows excellent cotton, and by irrigation large tracts may be fitted for that crop. Indeed, the cotton product of Mesopotamia may some day equal that of Egypt, which sells side by side with our cotton in the markets of Europe.

Among the other crops are wheat, barley, beans, and alfalfa. Much of the land is so rich that it yields two crops a year. The chief farm animals are water buffaloes and oxen. There are also horses, donkeys, sheep, and camels in the regions where the land is half desert.

Leaving Bagdad by train we go south to Basra (bäs'rä), the chief port of Mesopotamia, on the Shat-el-Arab

(shät-ĕl-ä-räb′), the name of the great stream formed by the union of the Tigris and the Euphrates. Basra is situated in a forest of date palms about seventy miles from the Persian Gulf. The town is cut up by canals and the whole region about is irrigated by canals which run through the date gardens. There is no place where the date palm grows so well, four fifths of all the dates sold coming from this part of Mesopotamia. There are raised annually almost enough to give two pounds of dates to every man, woman, and child in the United States. Most of the dates we buy at home are shipped from Basra. They go through the Persian Gulf to the Indian Ocean and thence north to the Red Sea and through the Suez Canal to some European port, whence they may be reëxported to America; or they may be transferred to steamers that pass out through the Strait of Gibraltar and go direct to New York.

1. Between what two great rivers is Mesopotamia? Give the length of each. Compare Mesopotamia in size with an American state; in population with an American city.

2. Why is Mesopotamia sometimes called the "cradle of the human race"? What places mentioned in the Bible are said to have been located here?

3. How was Mesopotamia affected by the World War? Why is the control of the country an advantage to the British? Describe some of the changes they have made.

4. Make visits to Bagdad and Mosul and tell what you see.

5. With what two important products of the United States may Mesopotamia compete?

6. What tropical fruit do we get from this region? How is it raised? (See Carpenter's "How the World is Fed.") From what other regions does it come? (See also Carpenter's "Africa.")

7. From what town in Mesopotamia was muslin named? Why?

8. What railway will connect Mesopotamia with Europe? Trace a shipment of cotton goods by this railway from Bagdad to Paris. Trace a shipment of dates from Basra to Liverpool; to New York and your home grocery store.

Oxen and donkeys are often hitched up together on plows.

LV. ARABIA

WE have left Basra and steamed down the Shat-el-Arab, past the island of Abbadan at the entrance to the Persian Gulf. After seeing the huge oil tanks there, fed by the pipe lines from the Persian oil fields, we went on to Bushire, the chief port of Persia. From Bushire we moved southward to the Gulf of Bahrein (bä-rān′), from which a million dollars' worth of pearls are taken every year, and thence on through the Strait of Ormuz to Maskat (mŭs-kăt′), the capital of Oman, Arabia. At Maskat we took on a cargo of dates bound for New York via Aden (ä′dĕn), and also some Persian carpets and pearls. We then sailed along the thirsty Arabian coast to the seaport of Aden.

The trip was tiresome and the weather was so hot that we slept upon deck. The Persian Gulf is five hundred miles long and it is more than twelve hundred miles from Maskat to Aden, which port is sixteen hundred miles from the Suez Canal, where Arabia may be said to begin. This gives us some idea of the extent of Arabia. It has a coast-line four thousand miles long and an area altogether about one third as large as the United States. Its population of about eight million Arabs is about equal to that of our New England States.

Most of Arabia is a high, dry plateau, forming the peninsula lying between Africa and the main body of Asia. It is separated from Africa by the Red Sea and the Suez Canal and from the remainder of Asia in part by the long Persian Gulf through which we have sailed. Much of the plateau is surrounded by mountains which enclose one of the driest and thirstiest of lands. Beyond the mountains at the west, bordering the Red Sea and extending down to the water, is a long, narrow plain, which in Yemen

Our route by sea and land around Arabia.

(yĕm′ĕn) is exceedingly fertile, and which at the east of Oman (ō-män′) and farther north has some fertile patches. The great desert of the interior has many oases inhabited by different tribes. It has also tribes of nomads who go from place to place seeking pasture for their numerous camels, horses, and sheep.

One of the most important parts of the country is Hejaz (hĕj-äz′). Before the World War it was a dependency of Turkey, which controlled a great part of the peninsula, but it is now subject to the Sultan of Nejd. Hejaz is

about twice as large as the state of Illinois and lies in western Arabia. It contains the two holy Mohammedan cities, Mecca and Medina (mă-dē′nä). Its chief port is Jidda, on the Red Sea. A railroad runs from Medina northward through Palestine and Asia Minor to Constantinople, and during the World War another railroad was built across northern Arabia from Egypt to Jerusalem. A short line has been built northward from Aden. Outside these lines, the only transportation in Arabia is by camels which move in slow caravans over the desert, just as they did a thousand years ago.

We get some idea of Arabia and its people at Oman and in our trip down the coast, and shall learn more by traveling inland from Aden, the desert town now before us. Our ship is anchored in the harbor, surrounded by low, ragged mountains of brown rock and white sand. Everything is brown, gray, or dazzling white; there is not a green tree or blade of grass to be seen. The houses which face the harbor are all white and brown. They are mostly one-story buildings of sun-dried brick covered with plaster, while climbing the hill in the rear are huts as brown as the rocks upon which they stand. Everything is dusty and dirty. The hot air from the desert sweeps over our steamer. As we land we look about for a drink of cool water for our parched tongues.

We soon find that water is worth money in Aden. It rains but seldom, sometimes two years passing without a drop falling. There is only one well in the city, and most of the water comes from the ocean, the sea water being turned into steam, which when condensed is fresh water. The machines for doing this belong to the British government, which has control of the city. It sells the water to the people, reserving a certain amount for the

British soldiers kept here. Aden belongs to England. It is important because it commands the entrance to the Red Sea and the Suez Canal.

Aden is the chief port of Arabia. A large part of the goods from the Red Sea and Persian Gulf ports is sent here for shipment to America and Europe. Much of the trade is with the United States. We buy every year great quantities of Arabian dates and Mocha (mō′kȧ) coffee, as well as hundreds of thousands of goatskins and sheepskins. Arabia has used as much as forty million yards of our cotton goods in one year, and most of the coal oil for lighting comes from the United States. Our dollar watches, phonographs, and sewing machines are known everywhere in the Arabian bazaars, and a great deal of American starch is imported for making Turkish delight, a candy of which the Arabs are fond.

As we walk through Aden, we see long caravans of camels coming in and going out. Some are laden with American goods, and others with dates, coffee, wool, gums, hides, and skins. We are told that two hundred thousand camels come here every year, and if we would travel far inland we must ride on these beasts and have soldiers on camels to guard us.

The Arabs with whom we are to travel for some weeks come from the same race as we do, although their home in the hot desert for ages has given them a different complexion, some being almost as black as negroes. They are a fine-looking people; lean, tall, and well formed, with straight black hair and black or brown eyes. Their faces are oval, their noses aquiline, and their eyes small and deepset. Though they are very proud, they are polite, good-natured, and hospitable.

There are many Arabs in Aden. Here comes one now,

An Arab sheik. He wears a hood and robe of white cotton.

leading a camel, his black face shining out in contrast to his white cotton gown, which is open at the chest and bound round the waist with a girdle of leather. He has a goat's-hair coat of black and white stripes which falls to his thighs, while his head is covered with a bright-yellow silk handkerchief, tied on with a black woolen rope as thick as one's thumb. The rope is bound round his head in such a way that the handkerchief covers his forehead and falls on his shoulders. His stockingless feet are protected from the hot road by wooden sandals.

Behind the man walks a Bedouin woman just in from the desert. How straight and fine looking she is! Her face is not hidden like that of her Persian or Mesopotamian sisters, and she is evidently proud of her necklace of silver and of the earrings of gold which half cover her cheeks. Her black face is tattooed, her eyelashes are darkened, and her finger nails and toenails are stained a bright red. She wears a blue gown falling to her feet and has a piece of dark-blue cotton over her head. Some of the other women we meet have on veils of various kinds, and we learn that the women of the towns usually cover their faces when out of doors.

The inhabitants of Arabia are divided into two classes, those living in tents and those of the towns and villages. The tent dwellers are wandering tribes, known as Bedouins, who rear stock, moving about with their sheep, goats, camels, horses, and asses from one grazing ground to another. Each tribe has its own district and is ruled by a chief.

As the Bedouins are not friendly to strangers, if we want to travel with safety among them we must pay a tribute to the chiefs who will send their soldiers along with us to protect our caravan from wandering bands on the way.

Suppose we visit a Bedouin camp. The tents are of homespun, goat's hair, or wool, dyed black and woven into a coarse cloth by the women of the tribe. The tent, seldom more than twenty feet long, is usually divided by a curtain into two rooms, one for the women and children, the other for the men. The ground serves as the table, chair, and bed of the family. The cooking is done over open fires, and all eat with their fingers. Millet and dates are the principal food. The millet is ground between stones to a flour and made into cakes. The dates come from the date palm, of which there are many varieties. They are

A camp of nomads in the Arabian desert.

eaten also by the horses and camels and even by dogs. Some of the tent dwellers raise a little wheat and barley, but millet is the chief crop.

The many children in these little tent villages watch the flocks, play with the horses and colts, and roll about on the sand. The girls and boys go naked from babyhood until they are quite large. Their dark brown or black

Bedouins mounted on camels.

skins shine under the tropical sun, which is so hot that we feel like throwing off our clothes and playing as they do.

Of all the stock kept by the Bedouins, the camels are most interesting, especially the camel colts. When we chase the ungainly little creatures, they run off at great speed. The Bedouin boys tell us that there are riding camels and freight camels. The riding animals make six or more miles an hour and some will go seventy-five miles in one day. The freight camels go only two or three miles an hour, but each will carry over four hundred pounds put up in two bales slung to its back. Camels are especially fitted for work in the desert, for they are so made that they can store away enough water at one drinking to last for a week and are therefore able to travel over these great sandy wastes where little or no water is to be had.

Arabian horses are famous for their beauty and speed. Raised in the desert, they are so trained to go long distances without water that one will travel a whole day and night in the summer and about twice as long in the winter without either water or food. Some of the finest horses bred for their speed in America and Europe are descended from Arab stock.

We find that the Bedouins think much of their horses, which are treated kindly and seldom become vicious. The children are allowed to play with them and the horses are really a part of the family.

LVI. IN AN ARABIAN VILLAGE — MECCA AND MEDINA

TO-DAY we shall see something of the cities and villages of Arabia. The cities are small, most of them on the coastal plain of the Red Sea and in Oman, at the southeastern end of the peninsula. By far the largest are Mecca and Medina, in western Arabia. As these two cities were the homes and chief preaching places of the prophet Mohammed, they are considered so holy by Mohammedans all over the world that every year they go there in crowds to worship.

We shall first visit the villages, which are to be found in the oases. Everywhere they are of much the same character. The houses are seldom of more than two stories, and most of them of only one. Built of mud bricks or stones laid in mortar, they have flat roofs and are often surrounded by walls. Each village has a market place in the center about which are the shops. The shops, where little except food is sold, are often kept by women.

Suppose we pay a visit to a high-class Arab. His house, although rude, is somewhat better than that of the average native. It has no windows facing the street and the door is so low that we must stoop to go in. Entering, we come into the gentlemen's parlor, where all male guests are received. If we should stay overnight, we may sleep in this room, on the floor.

Arabian village on the Red Sea. It is shaded by date palms.

The floor is covered with rugs and there are cushions here and there, upon which we sit in Oriental fashion with our legs crossed. At one end of the room is the fireplace, where a brass coffee pot steams. As soon as we are seated our host claps his hands, and a servant comes in and offers each of us a cup no larger than half an eggshell. It is filled with a brown fluid which looks more like molasses than coffee. The steam rises as the coffee is poured from the pot. After blowing it a little to cool it, we sip it slowly, enjoying the delicious aroma. Arabia is one of the homes of the coffee plant, and the famed Mocha, which is considered about the best of all coffee, comes from a city of that name in Yemen, not far from Aden.

We remain with our hospitable friends until evening. As the night approaches, dinner is served, and we sit

Arab children at play.

down around the meal on the floor. The food consists of thin wheat cakes baked to a crisp in an oven, and a stew of camel's flesh. At great feasts a sheep or lamb may be roasted and brought in whole to the guests.

We eat with our fingers, picking the meat out of the stew with pieces of cake which we double up for the purpose. When we have finished the stew, dates and other fruits, and sweets, are brought in; after that a basin of water is passed round for everyone to wash his hands. Now a boy brings a covered bowl in which incense burns. He sways this about each guest in order that he may perfume his face, hands, and clothes.

The food and the manner of eating make us think of the feasts described in the Arabian Nights. The Arabs have different customs from ours, but they are most polite and ceremonious in their manners and we must be very courteous if our behavior is to come up to their standard.

The Arabs have bright minds, although their schools are few and not many of the people can read or write. The teaching is mostly confined to the Koran (kō rän'), or Mohammedan bible, with the sheiks or the priests as the teachers. But in the Middle Ages, or a century or so before America was discovered, the Arabs were among the most learned men of the world, being famous as astronomers and mathematicians. They were the first to use decimals in figuring, and it was they who introduced the study of algebra into western Europe. They were noted for their geographical knowledge, and were famous as chemists and doctors. They made fine glass and pottery and were skilled in the working of metals and in the weaving of silk and wool.

Returning to Aden, we go by the railway to Lahej (la-hĕj') and on to Mocha in Yemen to look at the coffee plantations. Thence we travel northward to Mecca, where Mohammed was born.

Mohammed, the founder of the Mohammedan religion, was a poor shepherd boy who became the servant of Kadija, a rich widow of Mecca, and afterward married her. When he was forty years old he began to preach a new religion, of which the main principle was "There is but one God and Mohammed is his prophet." Mohammed claimed to have revelations from God, which were set down in the Koran. It is supposed that much of this book and of the religion he preached was taken from the Jews and Christians with whom he was known to have been associated. His religion was spread by the sword, and after his death the Mohammedans conquered all of Arabia, Mesopotamia, and Asia Minor, taking Constantinople. They eventually made their way into Europe as far north as Vienna. They conquered northern Africa and

overran Spain, fighting again and again with the Christians and being held back only at the Pyrenees Mountains. The Crusades were wars between the Christians of Europe and the Mohammedans for the possession of the Holy Land. To-day there are several hundred million Mohammedans in the world. There are some in China, and we have met many in our travels through India, Afghanistan, Persia, and Mesopotamia. Mohammedanism is still the chief religion of Arabia, Egypt, and many other countries in Africa and Asia. The Moros of the Philippines are Mohammedans.

Mecca has long been the seat of the Mohammedan religion, most of its believers all over the world looking upon it as the holiest place on earth. When they pray they kneel down with their faces in the direction of Mecca, and such of them as can afford it make long pilgrimages to worship here. They consider the city so holy that for many years strangers were not allowed to visit it. We shall disguise ourselves as Arabs, dyeing our skins and putting on turbans and gowns while we are here.

We slip into the city through great encampments of pilgrims, some of whom live in tents and go in to worship at the great mosque. Mecca itself has only about seventy thousand people, but as many as two hundred thousand pilgrims come here in one year. Entering the city, we find the streets narrow and dusty. The houses, which are of Mohammedan architecture, are large and unattractive. Mecca is not beautiful. It is dirty and dingy, and lies in a narrow, barren valley surrounded by high thirsty hills. The rainfall is scanty, and most of the water comes in an aqueduct built ages ago to the mountains at the east.

We are most interested in the huge mosque in the center of the city. It is thronged with pilgrims, and crowds are

Street scene in Mecca.

always coming in and going out. With the court which it surrounds, it can accommodate thirty-five thousand people. Inside the mosque is the Caaba, a little building containing a black stone which the Mohammedans say fell down from Heaven when Adam was thrust out of the Garden of Eden. They believe that if one kisses this stone his sins will pass away as his lips touch it. They say that when the stone fell to earth it was as white as snow, but the sins of those who have kissed it have long since turned it jet black. Looking at the stone we can see that it is a meteorite, and know that there are many stones like it in other parts of the earth. We do not risk kissing for fear of germs, and we dare not wash the stone first.

Leaving Mecca we make our way to Jidda (jĭd′*ȧ*), the port of Arabia, on the Red Sea, about forty-five miles away. It has about twenty thousand inhabitants, and is the place at which most of the pilgrims land.

From Jidda we go north to Medina to see where Mohammed was buried. This city, which is about half as large as Jidda, is composed of flat-roofed two-story houses. The tomb of the prophet is inside a great mosque which covers a space of almost three acres.

Medina is on the Hejaz Railroad, which the Turks have built from here north to Damascus to bring in the pilgrims. Though the trains are poor, they are much more comfortable than camels, so we buy tickets for the station nearest Palestine, along which the line runs.

1. Make a sketch map of Arabia, showing the countries and seas by which it is bounded; also the places mentioned in the text.

2. What waters separate Arabia from Africa? What important countries in Europe are peninsulas? In Asia? What parts of our country? Compare each of these peninsulas in character and people with Arabia.

The city of Jidda.

3. What other large deserts have we seen in Asia? What great desert is in Africa? In South America? In Australia? (For details see Carpenter's "Africa," "South America," and "Australia.")

4. Make a visit to an oasis and describe it.

5. Who are the Arabs? Compare them with the people of the South American desert; of the desert of Gobi; of Alaska; of Florida.

6. Make a trip through Arabia, following the route map, and tell what you see. Tell all you can about camels and Arabian horses. (For more about camels see Carpenter's "Africa.")

7. What is the chief port of Arabia on the Indian Ocean? Why is it important to England? What goods go from Aden to the United States? Trace a shipment of cotton goods from New York to Aden. How far does it travel?

8. In what part of Arabia is coffee raised? What is the chief coffee country of the world? (See Carpenter's "South America.")

9. Where is Hejaz? Mecca? Medina? Why is Mecca important to the Mohammedans? Visit the city and tell something about it. What railway do we take from Arabia to Palestine?

LVII. IN PALESTINE — WE VISIT JERUSALEM

THE Hejaz railroad is dry and dusty, but as the winds from the desert are fresh and bracing we enjoy our trip northward over the sands. Now and then we stop at a place where some date palms are growing around springs in the desert, and at the oasis of Tebuk, about four hundred miles north of Medina, we lay in a goodly supply of the lemons, dates, and pomegranates which the Bedouins bring to the train. Going onward we pass to the right of the Gulf of Akabah (ä′kä-bä), and a little later see at our right the mountains of Moab, from which Moses viewed the Promised Land. Near here we leave the train and descend into the low valley of the

A scene on the River Jordan, showing some of the rich land awaiting irrigation and general development.

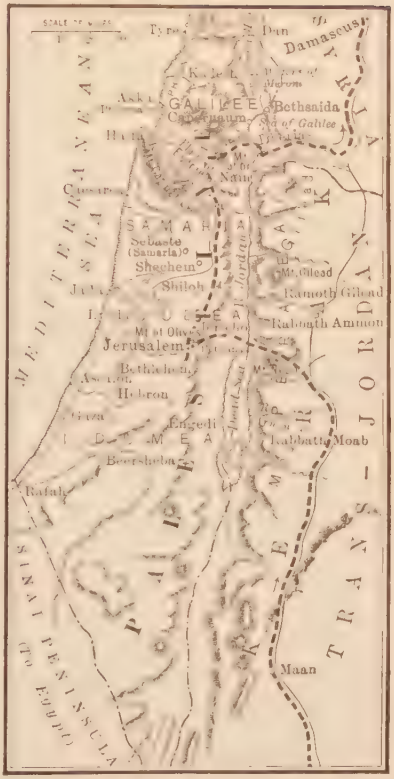
Jordan, which we cross at almost the same place that Joshua did when he led his army of Israelites into Palestine. The river Jordan seems little more than a creek to us. It is a clear, winding stream, running in a deep valley from the Sea of Galilee to the Dead Sea. It has a great fall, which, it is said, will be used to generate electricity for light and power.

We go on horseback to where the Jordan empties into the Dead Sea, making our way through the thorn bushes and dry, rainless hills. We take a swim in the Dead Sea, and try to dive down to the bottom, but the water is so heavy that we cannot possibly sink. We can lie on our backs and float about all day long. We can stand upright with our shoulders above the surface and tread water, but then our feet have a tendency to come to the surface, and we bob up and down like a monkey on a stick. It reminds us of the Great Salt Lake, which also is loaded with salt.

The Dead Sea has about the saltest water upon earth—if a pint of it is boiled down, one fourth is left as salt in the cup. It is six times salter than the ocean, and much salter than the Great Salt Lake. This sea is one fifth as large as the Great Salt Lake, and lies about thirteen hundred feet below the level of the ocean and almost three quarters of a mile below Jerusalem, which is situated high up in the mountains, about fifteen miles away. The Great Salt Lake, having an altitude of over four thousand feet, is a mile higher than the Dead Sea.

Leaving the Dead Sea, we ride to Jericho (jĕr′ĭ-kō), a little farther up the Jordan, and then climb the hills of Judea to Jerusalem. Before we enter the city let us take a bird's-eye view of Palestine. We have been told that the Holy Land was small, but until now we did not realize

how small it was. Before the World War, when it belonged to Turkey, it was a little larger than the state of Maryland, but now it includes only the land west of the Jordan and is not much larger than the state of Massachusetts. It is governed by the British, who were given a mandate over it by the Great Powers in 1920. Palestine is not more than fifty miles wide, and just about one hundred and fifty miles long. Lengthwise, it extends from Dan, in the foothills of the Lebanon Mountains, to Beersheba (bē-ēr-shē′bȧ), on the edge of Arabia. The distance is so short that if the country were level we might start in a motor car from Dan after breakfast and easily reach Beersheba for our noon luncheon. The country is so narrow that, standing on the Mount of Olives outside Jerusalem, we can see the Mediterranean on one side of us and the Dead Sea and the Jordan on the other. The land consists for the most part of a low mountain range covered with limestone, with fertile plains between the range and



Our journey through Palestine.

Wharves at Jaffa, an ancient seaport of Palestine, on the Mediterranean Sea.

the Mediterranean Sea, and on the opposite side the great depression in which lies the Dead Sea. The narrow Plain of Esdraelon (ĕs-drȧ-ē′lŏn) crosses the country through a break in the mountains from the southern end of the Sea of Galilee to the Mediterranean.

The mountains of the Holy Land are so rocky that only small spots can be cultivated, but they furnish excellent pasture for sheep and goats, and we shall see shepherds minding their flocks everywhere as we ride through them. Here and there, in the valleys and where the land has been cleared, are patches of wheat, barley, and corn, while now and then we see vineyards and olive groves. In the rich soil of the coastal plain grow all sorts of hardy grains and

fruits. There are no better oranges anywhere than those raised about Jaffa (yä'fä). Those we buy in Jerusalem taste especially good after our long trip over the desert.

Palestine has not as many people as there are in either Boston or St. Louis. Jerusalem, its largest city, has much less than one hundred thousand and Jaffa is less than three fourths as large. Bethlehem has only three thousand, and Nazareth about three times as many.

At the time of the World War there were only two railways in Palestine—one forty or fifty miles long, from Jaffa to Jerusalem, and another across the plain of Esdraelon from Haifa (hī'fä) to the southern end of the Sea of Galilee, near where the road connected with the railway to Damascus. During the war the British built a railway across the Desert of Sinai (sī'nī) from the Suez Canal to Jerusalem, so that Egypt is now connected with Palestine by rail. The British are making many other improvements, and the country is better ruled than it has been in the past. They have even piped water from Egypt into the Holy Land, so that many of the people are now drinking the water of the Nile.

We enter Jerusalem through David's Gate, and find a large hotel inside the walls, not far from the spot where it is said Jesus was crucified. Here stands the Church of the Holy Sepulcher to which pilgrims come from many parts of the world to worship. Inside the church is a marble tomb which the Oriental Christians believe to be that in which the body of Jesus was laid.

Climbing to the top of David's Tower, which is on Mount Zion, not far from our hotel, we take a look over Jerusalem. We can easily follow the outlines of the wall, although there are now many buildings beyond it, outside what might be called the city proper. David's Tower

A view from the city wall of Jerusalem, along the road to Hebron.

is close to the wall, which we can see directly under us as we stand here. It is of yellow limestone from the quarries hard by. It is about as high as a four-story house and runs around the old city, skirting the valleys which on three sides of Jerusalem are so steep that it is almost impossible to climb up to the wall except on one's hands and knees. The rest of the city faces a plain. Such a place could be defended easily and this was probably one reason

The Mosque of Omar.

why the Israelites chose it for the capital of their country.

But let us look down upon the city inside the wall. It is a jumble of boxlike stone houses crowded along narrow irregular streets and seeming to be built one on top of the other in all sorts of shapes. Here and there rises the spire of a church. On one corner, in a plot of about thirty-five acres, there stands a huge building with a green dome of bronze. That is the Mosque of Omar, owned by the

Mohammedans. It is on the site of Solomon's Temple, the ruins of which are supposed to lie under it. The other great dome nearer us is that of the Church of the Holy Sepulcher.

When we go down from the tower and take a walk through the streets, we seem to be going through tunnels walled on each side by long vaulted caves. These caves are the stores, which open directly on the street. As they are not large enough for us to go into, we stand outside as we bargain. The turbaned merchants sit on the floor, with their goods around them. Indeed, it looks to us as though Jerusalem might have been built by the cave dwellers. This cavelike character prevails also in the villages, many of which are cut out of the hills which form the back walls of the houses. The stable in Bethlehem in which Christ was born was probably one of these caves.

We have always thought of Jerusalem as a very grand city and are surprised at its meanness. Most of the streets are narrow, and the houses are crowded together. The buildings are swarming with people. There are families of Greeks, Jews, and Armenians, each family living in a room so small that it would be hardly large enough for a bedroom in America. Many of the rooms have no windows, and some are like vaulted caves, lighted only at the front. Most of the buildings are walled, floored, and ceiled with stone. Sometimes they run around courts upon which the rooms open. In such places the people often cook in the courts when there is no space left inside the house. There are also larger and more comfortable buildings.

The roofs of the houses of Jerusalem are flat, and are sometimes covered with grass. They form the resting places of the families, and in summer their sleeping places. In the winter there is plenty of snow, the climate being not

A street in Jerusalem. At the rear is the city wall.

unlike that of some parts of the United States. Nevertheless, we look in vain for chimneys. Fuel is scarce, and charcoal, which is commonly used, makes but little smoke.

What a variety of people we see on the streets! There are men here from all the countries about. There are pilgrims by the thousands from Russia and Greece, and visitors from Persia, Mesopotamia, Egypt, and Turkey. Standing against the wall we try to pick out some of the crowd passing by. That dark-faced, bearded man in a long brown gown, with a yellow handkerchief covering his head, is a Bedouin. He has a black rope tied round the kerchief and reminds us of the camel soldiers we saw in Arabia. Abraham may have dressed in the same way. Next to the Bedouin is a Bethlehem shepherd in a coat of sheepskin, below which a white gown falls to the feet. The shepherds who saw the star no doubt looked much as he does. His daughter is with him, and we see that her face is as fair, and her features as regular, as our own. She wears a gown of red and green silk, and has on a cap covered with rows of gold coins. That cap contains her dowry and shows how much money she will bring to her husband when she is married.

As we wait, droves of donkeys laden with grain pass beneath us and men from the desert come in upon camels. There are also many Russians, who wear long coats and trousers and boots which come to the knees. The women are clad in short gowns and high boots. We see Armenians and Greeks, some of whom wear the skullcap of red felt known as the fez, while others wear turbans. We see Christians from Abyssinia with faces like jet, and men from northern Europe with cheeks as fair as our own. There are tourists from America, and British officials and soldiers are everywhere.

These girls are natives of Bethlehem. The coins which they wear as ornaments are also part of their dowries. People who meet them can thus tell at a glance whether they are rich or poor.

There are also many Mohammedans, but it is impossible to tell which they are, for their dress does not indicate their religion. There are some, however, whose faith we cannot mistake. They have olive-brown faces, hook noses, and strong features. The men all wear beards and two long curls, one in front of each ear. Their cloth gowns or coats come almost to their feet, and many of them wear caps bound round with a fur that sticks out like the quills of an angry porcupine. They are Jews. The Jewish women

Camel caravan on the road from Jerusalem to Jericho.

wear bright-colored dresses and shawls upon which flowers are embroidered or painted. We can tell them, also, by their bare faces, the Mohammedan women being always veiled when they go out on the street.

It is less than a quarter of an hour by automobile from Jerusalem to Bethlehem, to which we motor during our stay. On the way we pass a caravan of camels, which, frightened at our big automobile, run away with great ungainly strides over the plain. Going on, we pass the fields where the shepherds lay when the star appeared and the plain where little David slew the great giant Goliath. Every place is so interesting on account of the Bible stories we recall, that we should like to tarry in the Holy Land for weeks. But our time is short and we must go on to the north.

Leaving Jerusalem, we make our way through Samaria and across the Valley of Esdraelon to see Nazareth, where the boyhood of Jesus was spent. It is a thriving little town high up in the mountains, surrounded by green fields and beautiful flowers. Here we enjoy playing with the children, who are noted for their beauty.

Thence we go on donkeys eastward to the little Sea, or Lake, of Galilee (găl′ĭ-lē), where the fishermen take us out in their boats. They tell us the sea is often stormy, but during our stay the water is smooth, and we are able to visit many of the places mentioned in the Bible. It was not far from this sea that Jesus preached the Sermon on the Mount; and at Capernaum (kȧ-pûr′nā-ŭm), at its northern end, where He lived for some time, He performed some of His miracles. At Tiberias (tī-bē′rĭ-ȧs), at the opposite end of the lake, we get a boat which takes us to a little port on the south shore, where we take the railroad for Damascus (dȧ-măs′kŭs).

Damascus, looking towards Mount Hermon. The two slender towers are the minarets of a mosque.

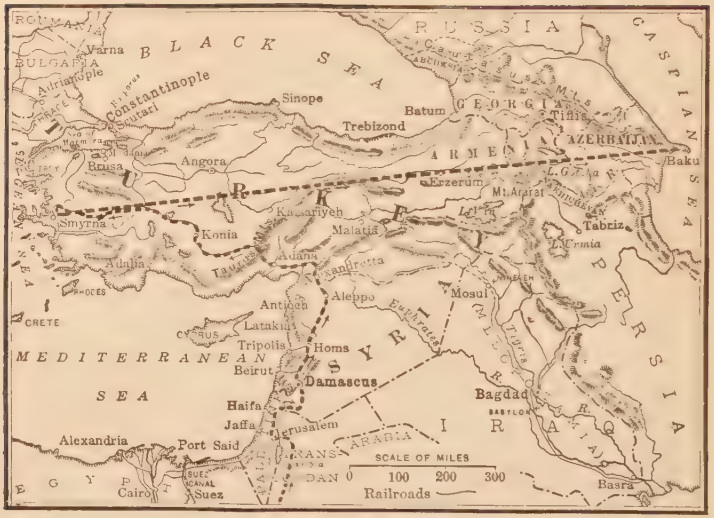
LVIII. SYRIA AND ASIA MINOR

ENTERING Damascus we are in Syria, a little country formerly belonging to Turkey, but given over after the World War to the control of the French. Syria consists of a part of the Lebanon Mountains and a narrow strip of land along the coast of the Mediterranean Sea. On a plateau in the mountains are the ruins of Baalbek.

The Syrians, who are mostly Mohammedan Turks, number several millions. Much of the country is in farms, the chief crops being wheat, corn, barley, and flax. There are large vineyards and olive orchards, and some mulberry trees which feed silkworms. There is a railroad across Syria from Damascus to Beirut (bā-rōōt′), the chief port, and another goes northward to Aleppo (*a*-lĕp′ō), on the Bagdad railway. Aleppo, with perhaps a quarter of a million people, is an important commercial center.

We are interested in Damascus. It is an oasis city, lying on the edge of the Syrian desert, surrounded by a large tract of fertile soil irrigated by two swift-rushing rivers from the Lebanon Mountains. It is one of the oldest cities of the world and was a thriving center in the time of David. It has now several hundred thousand inhabitants and its vast bazaars are filled with fine goods. We stroll through the "Street called Straight," visiting the shops, where we buy silks, brassware, and rugs. On excursions to the country about we look at the irrigated orchards of oranges, lemons, and figs.

After watching the caravans of camels coming in from Arabia and Mesopotamia, we take the railway over the Lebanon Mountains to Beirut, where we visit the American College, a famous institution of learning. Thence we ride northward to Aleppo, where we stay for several days.



Our route through Asia Minor.

We visit the bazaars and learn that silk, rugs, and pistachio nuts are among the exports to our country.

Leaving Aleppo, we go by railway through Asia Minor to Smyrna (smûr′nȧ) on the Mediterranean Sea. Smyrna is the sea gateway to Asia Minor, the peninsula formed by the Black Sea, the Strait of Bosporus, the Dardanelles, and the Mediterranean. The city is near the site of old Ephesus (ĕf′ē-sŭs), the ruins of which we go out to visit. We spend some time about the harbor watching them load ships with skins, wool, rugs, figs, and other things for the United States. We send some of the famous Smyrna figs by parcel post to our friends.

Smyrna has about four hundred thousand inhabitants, many of whom are Greeks. The city and the surrounding country were taken possession of by Greece at the close of the

World War, but were subsequently recaptured by Turkish forces. The people of Asia Minor were formerly oppressed and the resources of the country undeveloped. From now on, however, Turkey will have a republican form of government, with its capital at Angora. If well ruled, its railroads extended, and its agricultural and mineral resources fully developed, the country would form a much more important part of the world. Asia Minor is bigger than Italy and more than four times as large as our state of Ohio. It has about one eleventh as many people as the United States. They are mostly Mohammedan Turks, but there are also many Armenians, Greeks, and Jews.

The soil of Asia Minor is naturally rich. It is famous for its fine pastures and its large flocks of sheep and Angora goats. From the Angora goat comes the mohair of commerce. We watch the people of the villages weaving goat's hair and sheep's wool into rugs, just as we saw them doing in Persia. They work in their homes on rude looms, before which they kneel or sit crosslegged. Several persons are often employed upon a single rug, each taking a section of the pattern. The fine rugs are made entirely by hand, the tufts of wool being tied together and fastened to the threads without the aid of the shuttle. A good workman can weave only three or four square inches a day and a hearth rug of the best quality requires months of continuous labor.

The chief business of Asia Minor is farming. Flax, hemp, and tobacco are cultivated, and some cotton is grown. The chief grains are wheat, barley, millet, and corn. As we go through the country we see that the tools are rude and that a trade in our farming machinery might be built up. Most of the crops are now cut with a sickle, and the grain is trodden out by oxen and donkeys on threshing

Pulling tares from the wheat in Asia Minor.

Plowing in ancient fashion on a Syrian farm.

floors. Around Smyrna we see many fig orchards, and learn that oranges, lemons, almonds, grapes, and nuts are raised almost everywhere. The figs are especially fine and many are shipped to America, where we can buy them in almost any of our grocery stores.

But let us stop in one of the farm villages. It is made up of little houses of stone or sun-dried brick, with flat roofs and windows that are mere holes in the walls. In some of the villages the houses are often built either wholly or partly under the ground. A hole is dug for the building in the side of a hill, and one can hardly tell the house is there unless he sees it from the front. The roofs of such houses are often covered with two or three feet of grass-grown earth. There are no fences about the roofs, and the cattle and sheep may be seen grazing on the very tops of the houses. The floor is often below the level of the ground, so that we have to step down to go in. Upon entering, we find a cow stable on one side, and on the other a room which forms the kitchen, parlor, and sleeping place of the family. It is cold during the winter, but these cavelike homes are easily warmed.

The possessions of many a village family consist of a straw mat that covers the floor, a rude chest for the clothes, a few copper vessels, and some stone water jars. The cooking is done over open fireplaces or in ovens of clay or stone. The meals are served on the floor, and fingers take the place of knives and forks.

The cities have some large and comfortable homes. In the houses of the well-to-do there are separate quarters for the women and men, the men guests never being admitted to those parts where the women live. As is the custom of the Mohammedans, the women's quarters are often guarded by servants, and the women are not allowed

A village in Asia Minor. The houses are of stone with mud roofs.

to go upon the street without so concealing themselves in blue and black cloaks that they look as though they were walking about inside so many balloons. In addition, the woman covers her face with a veil so thick that a boy may pass his mother on the street and not know her, and a man could hardly recognize his wife if he saw her out shopping. While at home the women wear jackets and trousers, and their feet are either bare or clad in slippers of soft, bright-colored leather.

The Turkish gentlemen of Asia Minor usually wear shirts and full pantaloons, over which there are gowns that reach from the neck to the feet. In the cities some dress as we do. The poorer classes and those out in the country have only full trousers and jackets. The trousers are tied in at the ankles, and the men's shoes are without heels and turned up at the toes. The jackets are often embroidered with silver and gold. The men and boys have their heads shaved, with the exception of the lock on the crown. They wear skullcaps or turbans, which they keep on while in the house.

The boys and girls do not come together at parties, and husbands and wives do not eat together. All marriage arrangements are made by parents, who often make the engagements when their children are still babies. Boys are usually married while still in their teens. Unmarried girls at twenty years of age are considered old maids.

The people of Asia Minor are not very well educated, but new schools are being started and education will be free to all the people. This was supposed to be the case in the past, but the school laws were not enforced, and many of the people are ignorant. The Mohammedan priests were the teachers and the mosques were the schoolhouses.

In the Mohammedan schools the boys sit on the floors holding their books on their knees and studying out loud. Their chief studies are in the Koran, although they have besides some arithmetic, geography, and history.

1. Make a sketch map of Palestine showing the route of our travels. How large is Palestine? How many times would it go into your own state?

2. Why is the Holy Land especially interesting to us? By whom was it ruled before the World War? Who are its rulers to-day?

3. What is the capital of Palestine? Describe it by taking a trip through it. Where is Bethlehem? Nazareth? For what is each noted?

4. Describe our trip to the Dead Sea and the Jordan. Compare the Dead Sea with the Great Salt Lake, in size, in character, and in distance above the sea level.

5. Describe Damascus; Aleppo.

6. Compare Asia Minor with an American state. Describe the country and people. Visit a Mohammedan school and tell what you see.

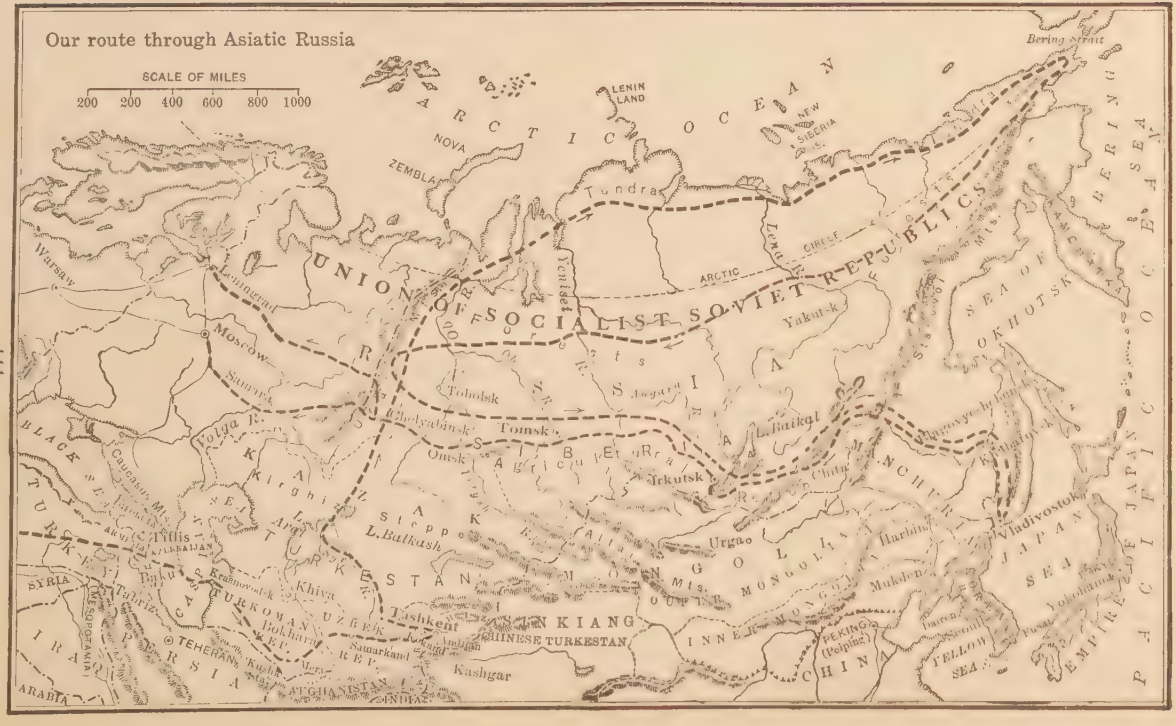
7. Where is Smyrna? What famous ruins are situated hard by? What events have happened in Smyrna since the World War? What fruit from here is sold in our stores? Tell all you can about it. (See Carpenter's "How the World is Fed.")

8. Who are the Turks? Their chief city is Constantinople. Find out about it and the people. (See Carpenter's "Europe.")

LIX. RUSSIAN TURKESTAN AND THE STEPPES

FROM now on much of our travels in Asia will be made in airplanes. We have yet to see Siberia and the vast provinces of west-central Asia which were a part of the former Russian Empire. This territory is so large that it would take several years to travel over it all on camels

RUSSIA in ASIA
SCALE OF MILES
0 200 400 600 800 1000
UNION OF SOCIALIST SOVIET REPUBLICS
Moscow
Irkutsk
Tashkent
Kashgar
Behring Strait
NOVA ZEMBLA
MANCHURIA
MONGOLIA
SINKIANG
PERSIA
TURKESTAN
AFGHANISTAN
INDIA
CHINA
ARCTIC OCEAN
BLACK SEA
CASPIAN SEA
20 40 60 80 100 120 140 160 180


Our route through Asiatic Russia
SCALE OF MILES
200 200 400 600 800 1000
ARCTIC OCEAN
LENIN LAND
NEW SIBERIA Is.
NOVA ZEMBLA
Bering Strait
Tundra
Lena R.
ARCTIC CIRCLE
Tomsk
UNION OF SOCIALIST SOVIET REPUBLICS
Warsaw
Leningrad
Moscow
Samara
Volga R.
Tobolsk
Chelyabinsk
Omsk
Yakut-k
L. Baikal
Irkutsk
Khabarovsk
Vladivostok
SEA OF OKHOTSK
BERING SEA
PACIFIC OCEAN
EMPIRE OF JAPAN
JAPAN SEA
BLACK SEA
CASPIAN SEA
Caucasus Mts.
Tiflis
Baku
Kirghiz Steppe
L. Balkash
Urga
MONGOLIA
Harbin
Mukden
Yokohama
SYRIA
Tabriz
Khiva
Tashkent
Samarkand
Bokhara
TURKOMAN S.S.R.
UZBEK S.S.R.
TURKESTAN
SINKIANG
CHINESE TURKESTAN
INNER MONGOLIA
PEKING (Peiping)
CHINA
YELLOW SEA
TEHERAN
PERSIA
IRAQ
ARABIA
AFGHANISTAN
INDIA
Kashgar

An American mowing machine in use in Turkestan.

and horses. Much of it is wild and unexplored, and there are few railways. Siberia alone is larger than the United States, while the Kirghiz Steppe (kĭr-gēz′ stĕp) and the land between it and Afghanistan and Persia are equal to about four times the size of all our states bordering upon the Atlantic Ocean. There is one long railway crossing southern Siberia, and another going east from the Caspian Sea to Tashkent (tăsh-kĕnt′), and on almost to Chinese Turkestan, north of Tibet. There is also a railway from Tashkent running northwest to the main line of the Trans-Siberian Railway. Most of the people live near the line of these railways, and we shall make most of our flights along them.

As we leave Asia Minor, we soar away toward the east, crossing Armenia, under the shadow of Mt. Ararat. We pass over the Caucasus Mountains and reach the Caspian Sea at the oil town of Baku, the chief city of Azerbaijan (ä-zĕr-bī-jän′). Here we lay in a supply of gasoline for our airplanes, and order some shipped to other places along our route. Crossing the Caspian

Sea to Krasnovodsk, within a short time we have flown on to Merv (mĕrf) and Bokhara (bō-kä′rä). We then go on to Andijan (än-dĭ-zhän′) at the end of the railway, and returning to Tashkent, fly north above the railroad that passes Lake Aral (ăr′ăl) to Samara (sȧ-mä′rȧ) in Europe, where it connects with the Trans-Siberian Railway.

This country is largely a desert, with the cities situated in the oases. The oasis of Merv, which is about twice as large as Rhode Island, is covered with irrigation canals and grows wheat, millet, and barley. Most of the water comes from the Murghab (mo͝or-gäb′) River, upon which Merv, the capital, stands. The place has now only a few thousand Armenians, Persians, Turks, and Jews, but it was once a large commercial center and a seat of Arabic learning and culture.

At Bokhara, about two hundred miles farther on (we make the flight in less than three hours), we stop for some days. This is an old walled city, and the center of a region in which there are many oases and fertile river valleys. Although it has only about seventy thousand inhabitants, Bokhara is one of the important cities of Central Asia. It lies near the railway in one of the valleys. Landing on some flat land in the outskirts, we make our way on foot in through the high walls that surround it. The streets are narrow, and the mud houses are densely packed together without open spaces or gardens. There are no windows facing the streets, and the city reminds us of Persia and Mesopotamia. The largest buildings are the mosques and the citadel.

We enjoy the bazaars, which are protected from the sun by roofs or coverings of matting over the streets, giving the effect of twilight at midday. At the same time the air is kept moist by half-naked men who sprinkle water

This young merchant is selling "notions" in the streets of Bokhara. The cap he wears is called a fez, and is a common headdress for men in Mohammedan countries.

Street merchants of Bokhara.

over the dust. Most of the merchants, who sit cross-legged in their stores, wear large white turbans and gowns. The storekeepers are largely Mohammedans, some of whom are reading the Koran while they wait for their customers. There are also Persians in high caps of short lamb's wool, and Hindus and Jews with strings round their waists outside their coats, and caps of velvet fringed with brown fur. The Hindus and Jews are not allowed to ride horses inside the town, and may not carry arms.

We find that a great deal of business is done in Bokhara. Caravans of camels and long lines of donkeys laden with bags or bales, as well as carts and carriages, move back and forth through the streets. We are often crowded to the wall to keep from being run over.

The goods sold in the bazaars are of every description, including beautiful things in metal and leather, as well as fine silks and rugs. Bokhara rugs are noted, and many are shipped to America. Some of the pottery has come over the mountains from China, and we see little hand sewing machines and watches from the United States. Among the exports are lambskins, from which are made the beautiful black caracul cloaks sold in our stores. The caracul sheep has a long, thin tail, whereas the ordinary sheep is of the fat-tailed variety.

Outside Bokhara we visit the fruit orchards and gardens, enjoying the delicious cantaloupe and other melons, and then go to a cotton plantation. The fields are irrigated and are cultivated with wooden plows and worked with rude picks and hoes. The crop is much less per acre than in the United States.

We are especially interested in the cotton crop, because the cotton grown in our Southern states is shipped all over the world. It competes with this Asiatic cotton in the markets of Poland and Russia. Cotton grows well in many places along the line of the Trans-Caspian Railway, but the annual crop is only about one fifteenth as large as ours. As we fly from Bokhara eastward we see cotton plantations about Samarkand (sȧm-ȧr-kȧnt′) and Tashkent. Going on, we enter the Fergana (fĕr-gä′nä) Valley, an oblong country almost surrounded by mountains, lying near the borders of Chinese Turkestan. This valley is as large as Illinois and has about two million people. It is the richest cotton region of Central Asia, supplying most of the crop. The cotton is sent by railway to the Caspian Sea, and thence north to the factories of eastern Europe, whence cotton goods and other manufactured wares are sent back in exchange.

This man wears the long gown and high sheepskin hat so often seen in Central Asia.

The people of Central Asia are especially interesting. Most of them are Tatars, and look not unlike the Turks. They are Mohammedans. Turbans and high sheepskin caps are worn almost everywhere, and in the cities most of the men dress in long gowns. Much of our flight is above the desert, which has scanty pastures here and there in the sand. As we go, we look down upon many wandering tribes who have flocks and herds of goats, sheep, camels, and horses. We are so high in the air that they look like the toy animals of a Noah's Ark. The people dwell in round tents which they move about with them to the best feeding grounds. Most of the men are armed with long guns. The country has many robber bands, and the different tribes frequently take possession of each other's flocks and herds and other property.

Going northward from Tashkent, we enter the land of the Kirghiz, where almost the whole population, amounting to several millions, are nomads. They have vast herds

of camels, sheep, horses, and cows, which they move about from one pasture field to another, settling at times about the wells or springs in the desert.

The Kirghiz are proud of being stock breeders rather than farmers, and estimate a man's wealth by the stock he owns. When a girl is married the groom is expected to pay for her by giving her parents a certain number of sheep, horses, and camels before the wedding takes place. A poor and homely girl is often sold for a camel, while a beautiful rich one may bring in as much as fifty camels or one hundred sheep.

The Kirghiz remind us of our American Indians, or the Mongolians we saw north of the Great Wall of China. They have high cheek bones and copper-colored skins. Both men and women wear red or yellow leather trousers, over which is a long robe tied in by a belt at the waist. In addition, the women have a close-fitting shirt. The women paint their faces, and braid ribbons and horsehair into their hair to make it seem longer.

Among the Kirghiz the women do most of the work. When the family goes to a new feeding ground they put up and take down the tents and load them upon the camels or horses. They do all the milking, which is quite a task, for not only the cows but the sheep, goats, and mares are milked. From the milk of the mares, which are milked three times a day, is made kumiss (kōō′mĭs), a drink which will intoxicate one if he takes too much. It tastes a little like buttermilk.

We stop awhile at Lake Aral (ăr′*a*l), and are surprised at its enormous extent. It is larger than Lake Michigan, and ranks next to Lake Superior and Lake Victoria in East Africa, as the third largest lake in the world. Those lakes are fresh. Lake Aral is salt, but not so salt as

the Dead Sea, the Great Salt Lake, or even the ocean. It has many fish, and we see the natives catching sturgeon, herring, and carp. The Kirghiz use flat-bottomed boats on the lake, and there are a few steamers. Sudden and violent storms are frequent on Lake Aral.

1. Locate Russia in Asia. Where is Siberia? Where are the steppes? Where is Russian Turkestan? Make a map outlining these regions.

2. Describe a trip to Russian Turkestan along the line of the Trans-Caspian Railway.

3. Visit Bokhara and tell what you see; Merv; the Fergana Valley. What crop is raised in this region which competes with one of our crops? Find out all you can about it and compare the conditions here with ours. (See Carpenter's "North America," also Carpenter's "How the World is Clothed.")

4. Mention some of the people of Central Asia. Visit a Kirghiz encampment and describe your adventures.

5. What great lake is situated in west-central Asia? Compare it with some of our Great Lakes (see Carpenter's "North America"); with Lake Victoria (see Carpenter's "Africa").

LX. SIBERIA — GENERAL VIEW

WE have flown by airplane northwest over Lake Aral to the low Ural Mountains, and now we go east and west, and back and forth, across the three great zones into which the region of Siberia is divided. Our first flight is over wild tundras along the shores of the Arctic Ocean, where the reindeer moss is underlaid with perpetual ice hundreds of feet deep. We end this flight at Bering Strait, within forty miles of Alaska. In two hours we could fly to Nome and get ships for Seattle. The scenes in Siberia make us think of northern Alaska. There are walruses and whales in the sea, and now and then we

catch sight of a huge white polar bear on the shores. We see a few copper-skinned natives clad in furs, who remind us of our Eskimos. Some of them are driving reindeer.

Flying from the Pacific back to the Urals, our next trip is over the wide forest zone that joins the tundra zone on the south. Here for hundreds and thousands of miles we see nothing but woods. At wide distances apart the lumbermen are cutting the trees, and floating them down the great rivers. This zone is one of the richest timber lands upon earth. Everywhere are the wild animals for which Siberia is noted. In one year the trappers have caught more than six million rabbits and squirrels, two hundred thousand ermine, and twelve thousand sables, together with tens of thousands of weasels and foxes. There are also many wolves, bears, and tigers. The long-haired tiger roams in the eastern part of this zone.

Going back to the Urals in our airplanes, we move on to the south and then fly across Siberia through the third zone, which lies between the forest zone and the Chinese Republic, ending our flight at the port of Vladivostok, on the Pacific Ocean, the eastern terminus of the railway.

This third zone is a vast stretch of cultivable land which promises to be some day one of the chief bread baskets of the world. It reaches from the Ural Mountains almost to the Pacific. It is longer than from New York to San Francisco, and several hundred miles wide. Running through it is the Trans-Siberian Railway, with cities and villages at wide distances apart along the line of its route.

As we fly eastward, we see great fields of flax, wheat, rye, oats, and barley, and here and there large dairy farms. We see many miners taking out gold, copper, iron, and coal, and learn that Siberia has valuable minerals

both here and in the zones farther north. At the time the World War began Siberia was mining several million tons of coal per annum. In the Tomsk (tômsk) Province is one coal bed sixty-six miles wide and three hundred miles long, and there are many rich beds of iron and manganese not far from the railway. Tin, graphite, mica, and asbestos are also found. Off the Pacific coast of this zone is a vast fishing industry, while great coal deposits exist on the island of Sakhalin hard by.

These flights have given us a bird's-eye view of Siberia and its valuable resources and an idea of the enormous size of the country. From east to west it is longer than the trip across the Pacific from San Francisco to Shanghai in China, and the distance from north to south is twice as far as from Canada to the Gulf of Mexico. Siberia is so large that if the United States could be lifted up and dropped down upon it there would be almost enough room left over round the edges for the entire Indian Empire.

The land as a whole is an irregular plain, sloping from the highlands of Asia to the Arctic Ocean. Here and there are a few mountain ranges rising out of the plain. Through it flow four mighty rivers which, with their tributaries, form tens of thousands of miles of navigable waterways. The Lena (lyĕ′nä), the Yenisei (yĕn-ĕ-sē′ĕ), and the Irtysh (ĭr-tĭsh′) are longer than any rivers of the United States excepting the Mississippi-Missouri, and Siberia has a dozen rivers which if they could be lifted up and placed side by side might form twelve navigable highways from New York to far beyond Chicago. The Amur River alone is twenty-seven hundred miles long; with its branches it is navigable for boats for eight thousand miles, and for rafts more than three times as far.

If this vast country were as thickly populated as the

United States it would have one hundred and sixty-five million inhabitants. It has not one sixteenth that number. Most of its people live along the rivers and in a narrow strip of land on each side of the Trans-Siberian Railway. They are chiefly Russians, although there are many Mongols, including Chinese, and also native tribes of aborigines, such as the Tunguses (tōŏn-gōōz′ĕz), Ostyaks (ŏs′tĭ-ăks), and others, who remind us of our Eskimos. In Eastern Siberia there are many Japanese, Chinese, and Koreans.

We are especially interested in Siberia as a rapidly developing territory in which many American goods might be sold. From a trade standpoint the country should be divided into three regions: Western Siberia, running from the Ural Mountains to the Yenisei River, Central Siberia, extending from the Yenisei to Lake Baikal (bī-käl′), and Eastern Siberia, comprising all of the vast country east of Lake Baikal and the Lena, and extending from the Arctic Ocean to the Manchurian boundary.

Western Siberia being that part of the land nearest Russia, its trade will go to Europe. It has had an enormous immigration from Europe and has now most of the cities and towns, and far more than half of the people of Siberia. It is made up of several large provinces running from north to south over the three zones through which we have traveled. Passing through the belts of tundras and forests we come into a great belt of black earth similar to that in southern Russia, while still farther south are the steppes, the high dry plains fitted for grazing. The black earth grows vast quantities of wheat and other grains, and together with the plains, supports a large dairy industry which before the World War was sending trainloads of butter to Europe. In 1913 the exports of meat amounted

to thousands of tons, and the butter brought in more than thirty million dollars.

The two northern belts of Central Siberia are similar to those of Western Siberia, but the land to the south consists of mountain ranges with rolling plains and rich valleys fitted for farming.

Eastern Siberia is the part of the country in which we are especially interested, for it can be reached cheaply by our vessels from San Francisco and Puget Sound. Already we have a great trade there in farming tools, agricultural machinery, railway locomotives, and cars, and in metal and leather goods as well as clothing and household supplies. All of the articles needed by pioneers of a new and fast-growing country can be sold in Eastern Siberia, and the demand for these articles will be greater and greater as the population increases. Our chief competitor for this trade is Japan, which lies but a few hundred miles from the Siberian coast and has railroads passing through Korea and Manchuria which connect it with Eastern Siberia. It can send in goods at much less cost than we can. Many Japanese are settling in the territory east of Lake Baikal, and we shall find Japanese merchants in most of the towns.

LXI. ACROSS ASIA BY RAILWAY

WE spend some time in Vladivostok, situated on a little peninsula three miles wide which runs out into the Gulf of Peter the Great, forming an excellent harbor. Vladivostok, founded by the Russians a little more than sixty years ago, is the chief port of Eastern Siberia. It is less than forty-four hundred miles from Seattle,

giving the United States a sea route to Eastern Siberia which is cheaper than the very expensive trade route over the Trans-Siberian Railway from Europe.

The city is beautifully situated. Its streets climb the hills which protect the harbor and give many fine views of the sea. Most of the buildings are large and substantial, and we enjoy the contrast between them and the mud huts of Asia Minor, Persia, and Mesopotamia. The big stores are delightful to shop in after the bazaars of Bagdad and Damascus. The hotels are comfortable, and the food is served in European style. We sit at our ease in the restaurants, drinking tea out of tumblers through straws, and now and then putting a lump of sugar between our teeth and sucking the tea through it after a fashion common in Russia.

We spend much time in taking snapshots on the streets, and explore the town in jinrikishas drawn by Chinese, or in droshkies driven by Russians and hauled by horses with high wooden bows over their collars.

Vladivostok is full of strange people. There are thousands of black-bearded Russians wearing high black caps, long coats, and full pantaloons tucked inside their high leather boots. There are many Japanese, some dressed in kimonos and some wearing clothing like ours. There are Chinese, rich and poor, dressed in silks or in cottons, and white-clad Koreans who have come north to work here where the wages are higher.

Now and then we see a man who looks like an Eskimo, having a copper-colored skin, slant eyes, a flat nose, and thick lips. He is a Buriat (bo͞o′rĭ-ăt) from north of Lake Baikal. He belongs to a tribe which has many superstitions, one of which is to have a horse killed when his owner dies in order that his spirit may carry his master safely through

Station in Vladivostok, the eastern terminus of the Trans-Siberian Railway.

the land of the hereafter. Equally odd are the Tunguses, who have come down from the basin of the Amur River and other places farther north. Some of them have brought in furs for sale. They belong to tribes who roam about through the woods without tents, often dwelling in caves or hollow trees. They travel from one part of their country to another on sledges drawn by reindeer.

We find American, German, and English merchants in Vladivostok. Many of them have traveled widely over Siberia and can tell us much about its various regions. They describe the great fisheries of Sakhalin Island, the southern half of which now belongs to Japan, and tell of the rich deposits of coal and other minerals which exist there. They say we should visit the fishing banks at the mouth of the Amur, and the great salmon canneries along that mighty stream. They mention towns, mountains, and streams, the names of which we have never heard, and tell us so many wonderful things about the country and people that we despair of seeing them all.

Leaving Vladivostok, we take passage on the Trans-Siberian Railway for Europe, having our tickets made out so that we can stop here and there on the way. There are two routes we might take for the eastern part of this journey. The shortest is through Manchuria to Harbin, and thence on to the main trunk line of the railway at some distance east of Lake Baikal. The other route turns to the north shortly after leaving Vladivostok and runs through the valley of the Ussuri (o͝o-so͞o′rē) River to Khabarovsk (kä-bä′rŏfsk), where the Ussuri joins the mighty Amur. Here the road turns to the west and follows the valley of the Amur, passing near Blagovyeshchensk (blä-gŏ-vyĕsh′chĕnsk) and following the Amur basin to near Chita, where it joins the road through Manchuria.

Since we have already seen Manchuria during our travels in China we shall take the latter route. Our first stop is at Khabarovsk. After strolling about through the wide, muddy streets of the town, we climb Artillery Hill for a look at the city and the great rivers flowing below us. The place reminds us of one of our settlements cut out of the woods in the days of American pioneering. Most of the buildings are of logs and one or two stories high. The chief streets have no sidewalks, and just now they are rivers of mud. The inhabitants are Mongols, Russians, Japanese, and Chinese, reminding us of Vladivostok. There are many boats at the wharves and now and then a great raft of lumber floats by.

Going on by train we soon reach Blagovyeshchensk, a city of much the same character. It runs for miles along the Amur River, with a wide street on the edge of the stream. The wharves are thronged with people and horses, wagons and carts. The buildings to the rear of them, many of them built of brick, are of considerable size. Blagovyeshchensk has iron foundries and flour mills. It has a museum, theaters, telephones, and telegraphs and the place is growing rapidly. There are gold mines near by.

Traveling on westward we enter the mountains and spend a day winding our way through tunnels and galleries along the steep shores of Lake Baikal, lying among the mountains about fifteen hundred feet above the sea. It is one of the largest and most beautiful lakes of all Asia, and the deepest fresh-water lake of the world. Its average depth is about two hundred feet greater than that of Lake Superior, and at one place it is almost a mile to the bottom. The lake is filled with fish, including sturgeon and salmon, and is the only interior lake in which seals are found.

Leaving Lake Baikal, a ride of about forty miles takes us to Irkutsk (ĭr-kōōtsk′), where we make a long stop. We are now in the largest city of Central Siberia. Irkutsk is the metropolis of the Yenisei basin, and a tea- and grain-trading center. There are gold mines in the mountains not far away, and smelters in the town. There are also large fur stores where we can buy some beautiful fox and ermine skins to take home to our friends.

The town has wide streets, well paved, and all modern improvements, including telephones and electric lights. It has a public library, a museum, a geographical society, and many schools. The inhabitants are mostly Russians, although there are many Chinese and Mongols, clad in sheepskin with the wool outward. Caravans loaded with tea, cotton, and other goods pass through the wide streets, and carts piled high with wheat and drawn by horses with huge yokes over their heads come in from the country about. Sometimes a line of camels is drawing a cart, and we now and then see camels hitched to American farm machinery working the fields.

Some time after leaving Irkutsk we enter the forests and ride for two days through the woods, passing over large swamps. The chief trees are birches and pines, and there are also many cedars and larches. At Taiga is the station for Tomsk, an important trade center on the Ob (ôb), reached by a branch line, while some days farther on is Omsk (ômsk), not far from where the Om (ôm) River flows into the Irtysh. Both cities are large and important. Omsk is the chief city of a country which includes the high plains, or steppes, of Russian Asia. There are large wheat fields not far away and American threshers, reapers, and other kinds of machinery are sold. Omsk is a good trading place and has large railway shops. Here the railway runs over

a bridge four miles in length. The stream which it crosses is only about two thousand feet wide, but the pressure of the ice is enormous and the bridge has been built especially long and strong to resist it.

From Omsk it is only about five hundred miles to Chelyabinsk (chĕl-yä-bĕnsk′), in the Ural Mountains, where the Trans-Siberian joins with the railroads of Europe. Here we end our travels on the continent of Asia.

By two or three days' journey we can reach almost any of the great ports of Europe and then get ships for home. We divide into parties to make the race for New York. One party goes to Moscow and Warsaw and thence across Poland and Germany through Paris to Cherbourg in France. Another goes north through Leningrad and Berlin to Hamburg in Germany. Others go by the most direct routes to Liverpool and Southampton.

The time taken to reach New York depends largely upon our train and steamer connections. How glad we all are when we pass by Staten Island and see the great Statue of Liberty upholding its torch as a welcome to dear old America, our land of the free.

1. Locate Siberia. How can it be reached by sea? By land? Make a trip from Seattle to Vladivostok, giving the distance; from San Francisco. What strait separates Siberia from North America? How wide is it?

2. Compare Siberia in size and population with Asia; with the United States; with Europe. Why is it that such a large country has so few people?

3. Describe the three zones of Siberia. What are the chief products of Siberia? Describe the three trade regions. In which trade region are we most interested? Why?

4. What kind of goods might we sell Siberia? What country is our chief competitor? Why? What is the chief port of Siberia? Trace a shipment of goods from New Orleans to that port; from San Francisco; from Hakodate, Japan.

TABLES

Table I. Areas of Continents and Oceans

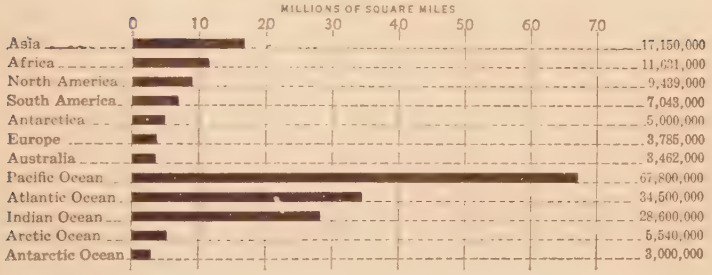


Table II. Areas of Asiatic Countries

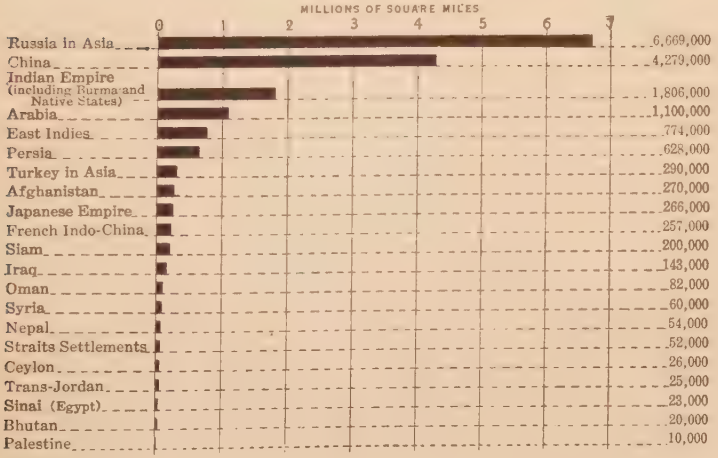


Table III. Populations of Asiatic Countries

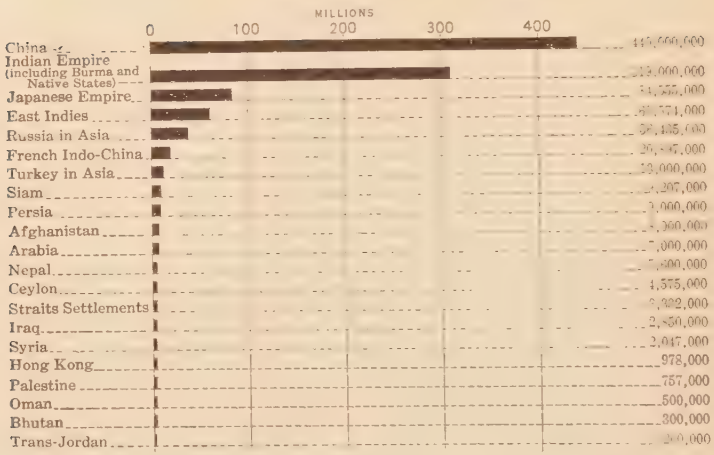


Table IV. Principal Cities of Asia

	Pop.
Afghanistan	
Kabul	140,000
Kandahar	35,000
Herat	20,000
Arabia	
Mecca	70,000
Jidda	30,000
Medina	20,000
Maskat	20,000
Aden	20,000
Asia Minor	
Damascus	170,000
Smyrna	164,000
Aleppo	140,000
Beirut	80,000
Angora	75,000
Adana	73,000
Brusa	62,000
Konia	47,000
Trebizond	25,000
Ceylon	
Colombo	244,000

	Pop.
China	
Hankow including Wu-chang and Hanyang	1,584,000
Shanghai	1,500,000
Peking (Peiping)	1,208,000
Hangchow	900,000
Chengtu	800,000
Tientsin	800,000
Canton	746,000
Chungking	623,000
Singan	500,000
Soochow	500,000
Hong Kong (Victoria)	480,000
Nanking	361,000
Foochow	315,000
Tsingtau	308,000
Amoy	300,000
Ningpo	284,000
Tsinan	250,000
Dairen	222,000
Harbin	186,000
Mukden	160,000
Urga	30,000
Lassa	20,000

French Indo-China	Pop.
Cholon	199,000
Saigon	124,000
Hanoi	103,000
Pnum Penh	82,000
Haifong	75,000
Binh-Dinh	74,000
Hué	41,000

India	
Bombay	1,176,000
Calcutta	1,132,000
Madras	527,000
Hyderabad	[illegible]
Rangoon	342,000
Delhi	304,000
Lahore	282,000
Ahmadabad	274,000
Lucknow	241,000
Bangalore	238,000
Karachi	[illegible]
Cawnpore	216,000
Poona	215,000
Benares	199,000
Agra	186,000
Amritsar	160,000
Allahabad	157,000
Mandalay	149,000
Nagpur	145,000
Jaipur	120,000

Iraq	
Bagdad	145,000
Kerbela	65,000
Mosul	60,000
Basra	50,000

Japan	Pop.
Osaka	2,115,000
Tokyo	1,996,000
Nagoya	769,000
Kyoto	680,000
Kobe	644,000
Yokohama	406,000
Nagasaki	189,000

Korea	
Seoul	306,000
Pingyang	114,000
Fusan	106,000
Chemulpo	54,000

Palestine	
Jerusalem	63,000
Jaffa	48,000

Persia	
Teheran	210,000
Tabriz	180,000
Bushire	25,000

Russia in Asia	
Tashkent	323,000
Omsk	162,000
Vladivostok	108,000
Samarkand	105,000
Irkutsk	99,000
Tomsk	92,000
Blagovyeshchensk	61,000

Siam	
Bangkok	500,000

Straits Settlements	
Singapore	260,000

TABLE V. DISTANCES BETWEEN PORTS OF ASIA AND UNITED STATES

Port and Route	To New York	To New Orleans	To San Francisco	To Port Townsend
Aden				
via Suez Canal	6,532	7,870		
via Cape of Good Hope	10,985	11,408		
via Suez Canal and New York			9,723	9,731
via Suez and Panama			10,800	11,600
Bombay				
via Suez Canal	8,120	9,536		
via Suez and New York			11,311	11,319
via Singapore			9,780	9,580
Calcutta				
via Suez Canal	9,830	11,239		

TABLE V (*Continued*)

Port and Route	To New York	To New Orleans	To San Francisco	To Port Townsend
Calcutta—*Continued*				
via Cape of Good Hope	12,180	12,838		
via Singapore			8,990	8,896
via Singapore and Panama	14,230	13,694		
Hongkong			6,086	5,886
via Panama	11,431	10,830		
via Suez	11,610	12,892		
via Cape of Good Hope	13,590	13,863		
via Magellan Strait	16,868	17,318		
Shanghai			5,550	5,290
via Panama	10,855	10,254		
via Suez	12,360	13,750		
Singapore			7,502	7,206
via Suez	10,170	11,560		
via Yokohama and Panama	13,104	12,503		
Vladivostok			4,706	4,357
via San Francisco and Panama	10,000	9,410		
via Magellan Strait	17,036	17,445		
Yokohama			4,536	4,240
via San Francisco and Panama	9,869	9,268		
via Magellan Strait	16,205	16,614		
via Singapore and Suez	13,040	14,471		

NOTE: In calculating time of travel, allow thirty miles an hour for distance by railroad, and fifteen miles an hour for distance by steamer.

TABLE VI. IMPORTANT RIVERS

	Length in Miles		Length in Miles
ASIA			
Amur	2,700	Tigris	1,100
Euphrates	2,000	Yangtze	3,100
Ganges-Brahmaputra	1,800	Yenisei	3,000
Hwang	2,800	OTHER CONTINENTS	
Indus	1,900		
Irrawaddy	1,200	Amazon	3,500
Jordan	200	Congo	2,800
Lena	2,800	Danube	1,800
Mekong	2,600	Mississippi-Missouri	4,200
Menam	600	Nile	3,700
Ob	3,000	Plata	2,500
Salwin	1,500	Volga	2,300

Table VII. High Mountains and Plateaus of the World

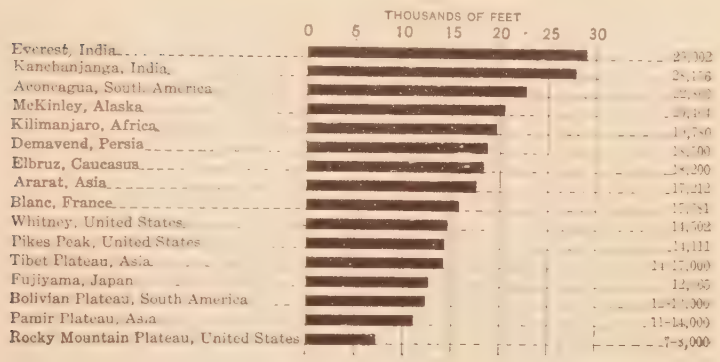


Table VIII. Principal Countries Producing Wheat

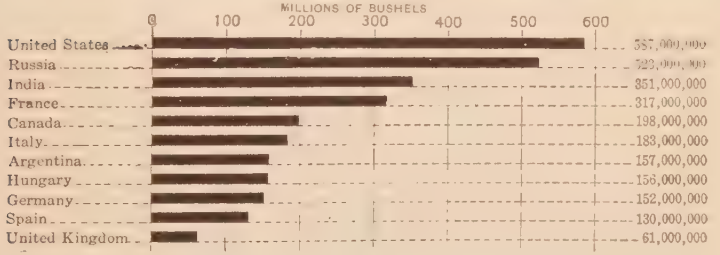


Table IX. Principal Countries Producing Rice

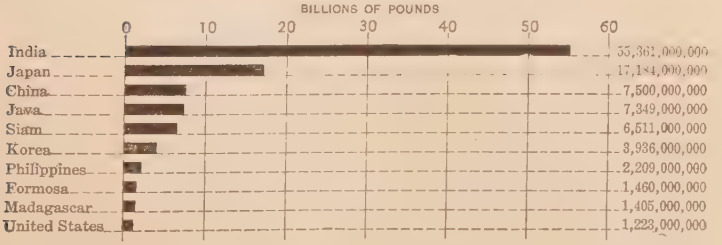


TABLE X. PRINCIPAL COUNTRIES PRODUCING COTTON

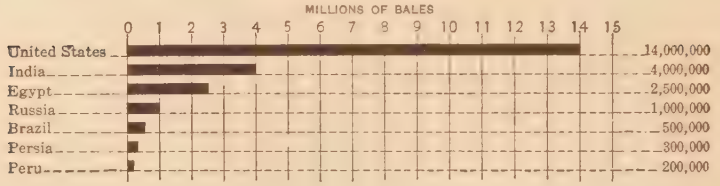


TABLE XI. PRINCIPAL COUNTRIES PRODUCING TEA

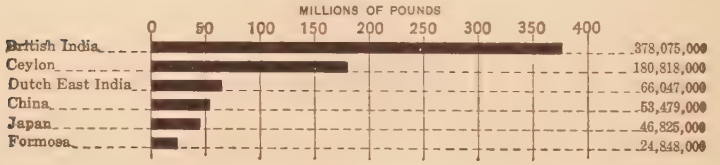


TABLE XII. PRINCIPAL COUNTRIES PRODUCING RAW SILK

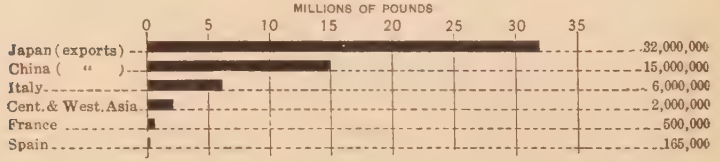
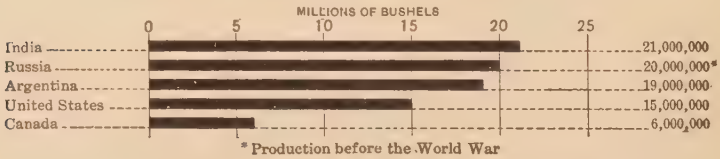
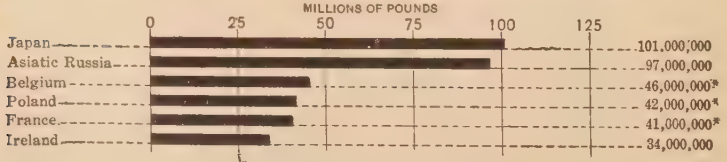


TABLE XIII. PRINCIPAL COUNTRIES PRODUCING FLAX SEED



* Production before the World War

TABLE XIV. PRINCIPAL COUNTRIES PRODUCING FLAX FIBER



* Production before the World War

Table XV. Principal Countries Producing Rubber

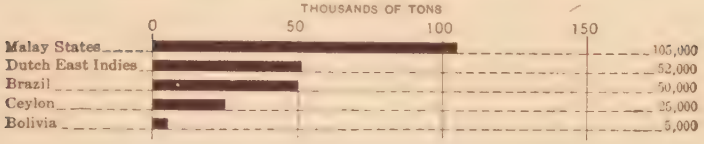


Table XVI. Principal Countries Raising Cattle

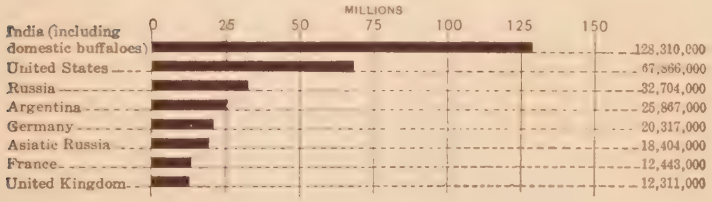


Table XVII. Principal Countries Raising Sheep

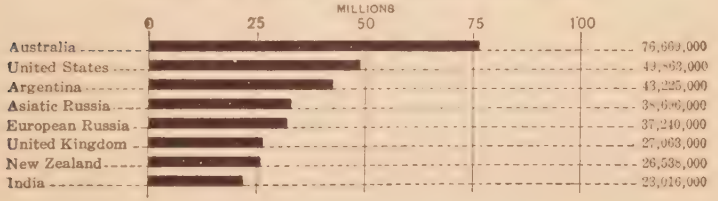


Table XVIII. Principal Countries Producing Gold

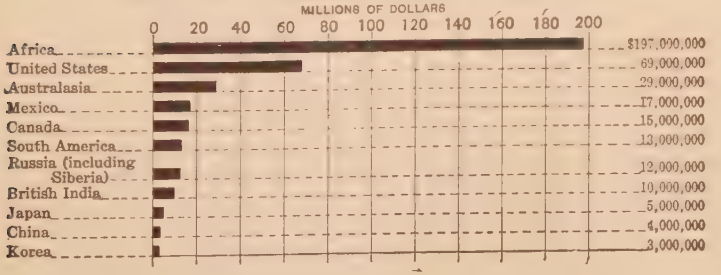


TABLE XIX. PRINCIPAL COUNTRIES PRODUCING COPPER

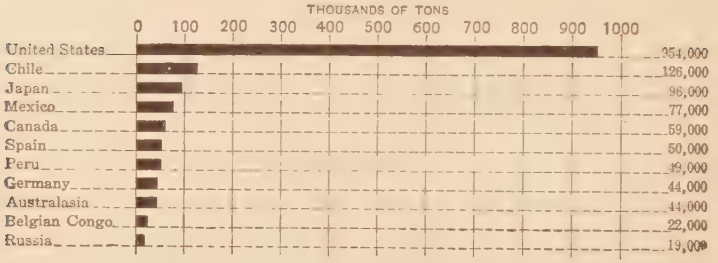
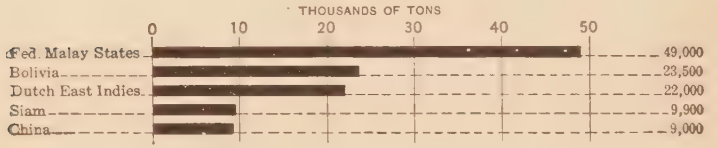


TABLE XX. PRINCIPAL COUNTRIES PRODUCING TIN



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MARKINGS: ā in lāte, â in prelâce, ă in răt, à in fär, å in måsk, ȧ in ȧccount, ȧ in sofȧ; ē in mē, ê in rêturn, ĕ in mĕt, e in makĕr; ī in fīne, ĭ in tĭn; ō in nōte, ô in ôbey, ŏ in nŏt, o in fŏr, o in connect; o͞o in sch͞ool, o͝o in w͝ol; ū in tūne, u in rut, û in bûrn, ŭ in circŭs; n in ȧnger, K = German ch; N = ng in its effect "nasal" on the preceding vowel; ü = French ü; zh = z in azure.

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